May 1995

Machiavellian Attitudes Acknowledged by Principals of Tennessee Secondary Schools

George M. Williams
East Tennessee State University

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MACHIAVELLIAN ATTITUDES ACKNOWLEDGED BY PRINCIPALS OF TENNESSEE SECONDARY SCHOOLS

A Dissertation
Presented to
the Faculty of the Department of Educational Leadership and Policy Analysis
East Tennessee State University

In Partial Fulfillment
of the Requirements for the Degree
Doctor of Education

by
George Max Williams, Jr.
May 1995
APPROVAL

This is to certify that the Graduate Committee of

George Max Williams, Jr.

met on the

seventh day of December 1994.

The committee read and examined his dissertation, supervised his defense of it in an oral examination, and decided to recommend that his study be submitted to the Graduate Council Associate Vice-President for Research and Dean, School of Graduate Studies, in partial fulfillment of the requirements for the degree of Doctor of Education.

Chairman, Graduate Committee

Signed on behalf of the Graduate Council

Associate Vice-President for Research and Dean, School of Graduate Studies
ABSTRACT

MACHIAVELLIAN ATTITUDES ACKNOWLEDGED BY PRINCIPALS OF TENNESSEE SECONDARY SCHOOLS

by

George Max Williams, Jr.

The purpose of this study is to determine the level of Machiavellian attitudes acknowledged by secondary school principals as measured by the Mach V Attitude Inventory Scale. The data were collected from an ex post facto survey of 169 public and nonpublic secondary school principals, grades 9-12. Principals completed the Mach V scale and a 13-item demographic survey.

Sixteen research questions were formulated to examine the relationship among the variables which produced seventeen null hypotheses. Of the seventeen null hypotheses, four were found to be significant and thirteen were nonsignificant.

A review of the descriptive data indicated that the majority of Tennessee secondary school principals acknowledge low-Machiavellian attitudes. In addition, the data indicated that the gender of the principals reflected a significant difference in Machiavellian attitude. Significant differences were found in the subgroups of views, morality, and tactics based on their total Machiavellian score.

The descriptive data were generated by using a frequency distribution, t-tests for independent means, and one-way analysis of variance.

The following conclusions of the study are offered:

1. Principals acknowledge that they possess low-Machiavellian attitudes.
2. The findings of this study are parallel with those of Christie and Geis who found that educators tend to be low-Machiavellian.
3. Female principals are more Machiavellian than male principals.
4. Leadership at exemplary secondary schools is not provided by high-Machiavellian principals.

5. On the basis of the demographic information, a typical secondary school principal is defined as follows: a male Caucasian who has served 1 to 7 years as a public school principal and has 24 to 31 years of educational experience and who is satisfied with his position, serves an appointed superintendent, and desires to remain in his position as principal.

6. Based on the high rate of return and the even distribution of responses from the three areas of East, Middle, and West Tennessee, the results of the survey are descriptive of all secondary school principals. In addition, the even distribution and rate of return indicate that principals are interested in responding to research studies involving leadership attitudes.

7. Low-Machiavellian principals are serving superintendents who were appointed.

8. The subscores of views, morality, and tactics reflect a level of Machiavellian attitudes similar to the total Machiavellian scores of Tennessee secondary school principals, indicating that the Mach V Attitude Inventory Scale is a valid instrument for measuring Machiavellian attitudes.
PROJECT TITLE: Machiavellian Attitudes Acknowledged by Principals of Tennessee Secondary Schools, IRB#94-024s

PRINCIPAL INVESTIGATOR: George Max Williams, Jr.

The Institutional Review Board has reviewed the above-titled project on September 19, 1994, with respect to the rights and safety of human subjects, including matters of informed consent and protection of subject confidentiality, and finds the project acceptable to the Board.

Anthony J. DeLucia
Chairman, IRB
DEDICATION

To my wife, Wilma, whose love, help, and never-ending support made this educational dream become a reality, and to my mother, Mildred, whose love and encouragement throughout the years has contributed to the completion of my Ed.D., I lovingly dedicate this dissertation. I shall always revere their faith in my ability.
ACKNOWLEDGMENTS

I would like to express my sincerest regards to my chairman, Dr. Robert McElrath, who with his expertise and friendship, encouraged my endeavors in this study. In addition, my gratitude is extended to the other members of my distinguished committee, Dr. Donn Gresso, Dr. Carroll Hyder, and Dr. Russell West, for their relentless counsel and support.

To my former committee chairman, Dr. Charles Burkett, I offer my esteem and deepest appreciation. I shall always be grateful to him for introducing me to Niccolo Machiavelli.

A special thanks to Christine Keys who has dedicated so much of her time and literary talents to my dissertation. Her friendship and devotion have been invaluable in completing this project.

I would like to thank all my fellow doctoral students at East Tennessee State University for their support and help during the past three years.

Much appreciation is given to the principals who participated in the research project. Their help and support contributed greatly to the completion of my dissertation.
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CHAPTER 1
Introduction

By the year 2000, will Tennessee principals be prepared to deal with the ever-changing global educational systems? Will power and politics of secondary school principals diminish or flourish in our school systems? What types of leadership styles will be needed for future Tennessee principals? What types of leadership attitudes are acknowledged by principals in Tennessee today? Tennessee has recently experienced another educational reform due to the Education Improvement Act of 1992. As a result, principals are changing and modifying their leadership styles to accommodate the new rules and regulations. Such frequent changes necessitate strong leadership traits. Sergiovanni (1991) quoted Phillip Schlechty as being fond of saying, "We are flying the airplane as we build it," whenever he describes the various programs comprised in his school reform initiatives (p. x). More attention should be devoted in particular to leadership in education. Rossow (1990) explained that pedagogically, he believed that "instructional leadership is not a born trait—it can be learned" (p. ix).

Recognizing the importance of leadership traits as a part of power and politics, this study addresses the attitudes inherent in the leadership styles of today's secondary school principals. The importance of the role of power and politics was identified during the Italian Renaissance. One style, Machiavellianism, was developed in
1513 by Niccolo Machiavelli, an Italian. His book, *The Prince*, expressed his views on power and politics and emphasized a philosophical justification for becoming a successful Italian Renaissance ruler (Christie, 1970). *The Prince* was written as a guide for Italian leaders of Machiavelli's day, but today it is used by leaders who wish to gain and retain power at their work place (Jay, 1967). *The Prince* is still considered the bible of successful political life by many people active in civic affairs (Kimbrough, 1985). Machiavelli's approach and his keen analysis of the nature of political problems and techniques are the basis for much of today's political philosophy.

All principals have a combination of leadership styles that they use in performing daily duties. Do Tennessee principals score high, neutral, or low on a Machiavellian attitude inventory? Do Tennessee principals need exposure to Machiavellian leadership characteristics?

All styles of leadership characteristics which secondary principals have and/or need should be determined including the Machiavellian style of leadership. A knowledge of all styles is beneficial to practicing principals as well as apprentice principals. Machiavellian leadership style has been recognized in various leadership conferences and seminars. Thoms (1987) noted that Machiavelli's *The Prince* was one of the "Great Books" chosen for a humanities leadership conference held for thirty principals at Vanderbilt in 1986. Modern day Machiavellian leaders might provide decisive, strong manners of dealing with situations. They would
analyze all decisions and act accordingly. The Machiavellian-style principals would put their schools first.

In summary, in order to evaluate the data of leadership attitudes, a potential theoretical concept (Machiavellianism) was used as a reference.

**Statement of the Problem**

Very few studies involving the leadership attitudes of the secondary principals in the state of Tennessee have been conducted. Educators and principals across the state need to be aware of the leadership attitudes of principalship, including Machiavellian characteristics.

**Purpose of the Study**

The purpose of this study was to explore the level of Machiavellian attitudes acknowledged by secondary school principals (measured by the Mach V Attitude Inventory Scale) (Christie, 1970). The principals' scores were categorized into high, neutral, and low. This study was designed to present a descriptive statistical picture of the extent that Tennessee secondary school principals acknowledge Machiavellian characteristics.

A secondary purpose was to compare the high school principals' scores on the Mach V inventory to determine if there was a relationship between all the demographic items and the principals' high-, neutral, and low-Machiavellian rankings. The results of the study will prove beneficial for principalship programs designed for
orientation as well as for training. A vital element of such training is exposure to the different theoretical models of leadership attitudes, including Machiavellism.

In 1994 a group selected from the Tennessee State Department of Education Regional Directors and from professors of Tennessee state universities identified twenty-five secondary schools as "exemplary." A third purpose of the study was to segregate the scores of the principals of the exemplary schools to determine their ranking on the Mach V Attitude Inventory (Christie & Geis, 1970).

**Research Questions**

The following list constitutes questions presented at the onset of this study:

**Question 1:**
What level of Machiavellianism is demonstrated by Tennessee secondary school principals?

**Question 2:**
Are there differences in the Machiavellian scores of Tennessee secondary school principals based on gender?

**Question 3:**
Are there differences in the Machiavellian scores of Tennessee secondary school principals based on school status?

**Question 4:**
Are there differences in the Machiavellian scores of Tennessee secondary school principals based on ethnical/cultural background?
Question 5:
Are there differences in the Machiavellian scores of Tennessee secondary school principals based on age?

Question 6:
Are there differences in the Machiavellian scores of Tennessee secondary school principals based on years of experience as a principal?

Question 7:
Are there differences in the Machiavellian scores of Tennessee secondary school principals based on educational level?

Question 8:
Are there differences in the Machiavellian scores of Tennessee secondary school principals based on the institution granting the principal's license?

Question 9:
Are there differences in the Machiavellian scores of Tennessee secondary school principals based on years in the education profession?

Question 10:
Are there differences in the Machiavellian scores of Tennessee secondary school principals based on administration aspirations?

Question 11:
Are there differences in the Machiavellian scores of Tennessee secondary school principals based on school location?
Question 12:
Are there differences in the Machiavellian scores of Tennessee secondary school principals based on self-perceptions of political/power mechanism and/or educational mechanism?

Question 13:
Are there differences in the Machiavellian scores of Tennessee secondary school principals based on the principal's satisfaction level in his or her current principalship?

Question 14:
Are there differences in the Machiavellian scores of Tennessee secondary school principals based on the principal's superintendent being appointed or elected?

Question 15:
Are there differences in the Machiavellianism scores of Tennessee secondary school principals based on exemplary versus nonexemplary school status?

Question 16:
Are there differences in the Machiavellian scores of Tennessee secondary school principals based on the principals' subscores of views, morality, and tactics.
Hypotheses

The following thirteen hypotheses relate to the research questions:

H1: There will be a significant difference in the Machiavellian scores of Tennessee secondary school principals based on gender.

H2: There will be a significant difference in the Machiavellian scores of Tennessee secondary school principals based on school status.

H3: There will be a significant difference in the Machiavellian scores of Tennessee secondary school principals based on ethnical/cultural background.

H4: There will be a significant difference in the Machiavellian scores of Tennessee secondary school principals based on age.

H5: There will be a significant difference in the Machiavellian scores of Tennessee secondary school principals based on years of experience as a principal.

H6: There will be a significant difference in the Machiavellian scores of Tennessee secondary school principals based on educational level.

H7: There will be a significant difference in the Machiavellian scores of Tennessee secondary school principals based on the institution granting the principal's license.

H8: There will be a significant difference in the Machiavellian scores of Tennessee secondary school principals based on years in the education profession.
H9: There will be a significant difference in the Machiavellian scores of Tennessee secondary school principals based on administration aspirations.

H10: There will be a significant difference in the Machiavellian scores of Tennessee secondary school principals based on school location.

H11: There will be a significant difference in the Machiavellian scores of Tennessee secondary school principals based on self-perceptions of political/power mechanism and/or educational mechanism.

H12: There will be a significant difference in the Machiavellian scores of Tennessee secondary school principals based on the principal's satisfaction level in his or her current principalship.

H13: There will be a significant difference in the Machiavellian scores of Tennessee secondary school principals based on the principal's superintendent being appointed or elected.

H14: There will be a significant difference in the Machiavellian scores of Tennessee secondary school principals based on exemplary versus nonexemplary school status.

H15: There will be a significant difference in the Machiavellian scores of Tennessee secondary school principals based on the principals' subscores regarding views.

H16: There will be a significant difference in the Machiavellian scores of Tennessee secondary school principals based on the principals' subscores regarding morality.
H17: There will be a significant difference in the Machiavellian scores of Tennessee secondary school principals based on the principals' subscores regarding tactics.

Significance of the Study

No previously published studies had been conducted in the state of Tennessee pertaining to level or extent of Machiavellian attitudes acknowledged by principals. Based on findings of Lipham and Franke, Teran and Licata (1992) reported that "upwardly-mobile administrators tend to share certain behavioral characteristics and career orientations that distinguish them from colleagues who are not as upwardly mobile (p. 419). A database is needed to determine if Tennessee principals perceive themselves as high-, neutral, or low-Machiavellian leaders. By utilizing the level of Machiavellian attitudes acknowledged by Tennessee secondary school principals, information could be useful in developing orientation and principal training preparation programs. Based on the questionnaire responses, a determination was made illustrating the actual Machiavellian attitudes that Tennessee secondary school principals acknowledged.

Limitations and Assumptions of the Study

The study was limited to public secondary schools and approved nonpublic secondary schools categorized by grades 9 through 12. The findings are relevant only to the principals of secondary schools in
Tennessee employed for the 1994-95 school year. The study was conducted during the first term.

The questionnaire used for the study was the Mach V Attitude Inventory developed by Christie and Geis in 1970 (p. 22-25). It was modified to include demographic information pertinent to the study. The second limitation of the study was the selection process for the demographic questions utilized. Some important questions about the topic were not addressed because of the time constraints, the design of the instrument, the present educational attitudes, and the influence from national trends.

It was assumed that all respondents answered the questionnaire honestly. But the final assumption of the study was that people often answer questionnaires the way the respondents want to be perceived. This human characteristic cannot be deleted from the study. It is very difficult for respondents to answer questions and not let their responses be affected by their personal desires. This self-reporting limits the study in this regard.

**Definition of Terms**

Niccolo Machiavelli--"the most important political philosopher of the Italian Renaissance, had a notable political career (1494-1512), including service as Secretary of the Chancellery of the Council of Ten at Florence before turning to a new career as author of significant works on law and politics" (Sahakian, 1969, p. 121).
The Prince—a book written by Niccolo Machiavelli in 1513 and 1514. The basic theme of the book is that the state is the highest progressive creation of man which is formed and maintained by the cooperative endeavor of the leader and the people. In addition, the art of politics requires that the leader or politician must adapt to various circumstances to protect the superiority of the state.

Machiavellianism—a psycho-social construct of political power requiring a leader to protect the superiority of the state. The leader, acting amorally, puts the state above all else to insure its success.

Mach V Scale—a scale constructed by Christie and Geis (1970) used to determine Machiavellian tendencies. There are twenty forced-choice items consisting of three content areas: views, tactics, and morality. It has an internal reliability of .60 to .70. Test validity between manipulation and Mach V is .70 and above. The range of the test is 40 to 160 with 100 being a neutral score. Strong disagreement to Machiavellian statements would be indicated by a score of 40. A score of 160 would indicate strong agreement to Machiavellian statements.

Politics—a term that "implies trade-off, compromise, less than perfect solution, and perhaps, secret deals that benefit those in power" (Lunenburg & Ornstein, 1991, p. 314). It is usually public rather than private and relates to public issues. Politics is often described as getting others to do what you desire them to do.

Secondary School—a public or nonpublic high school graded 9 through 12 and listed in the 1993-94 Directory of Public
Schools/Approved Nonpublic Schools published by the Tennessee Department of Education.

Organization of the Study

The study was organized and is presented in five chapters. By following the chapters numerically, the reader will discover the relationship between leadership attitudes of Niccolo Machiavelli and the attitudes of public and nonpublic Tennessee principals of secondary schools. The database developed through this study provided answers for the questions presented in chapter 1.

In chapter 2, a review of available literature is presented as an information base for the study. The questionnaire and methods of data collection are presented in chapter 3. The findings from data analyses are displayed and explanations are presented in chapter 4.

Chapter 5 provides a summary, the findings, and the conclusions of the study. In addition, the recommendations for future study are included in the final chapter.
CHAPTER 2
Review of the Literature

The literature on the following topics is reviewed in this chapter: the background of Niccolo Machiavelli; a review of his works, The Prince and The Discourses; power and politics; Machiavellianism; and the leadership traits and the Machiavellian characteristics of the secondary school principal.

Niccolo Machiavelli

Background

The most important political philosopher of the Renaissance was Niccolo Machiavelli, a Florentine diplomat whose writings and ideas have influenced political leaders since the fifteenth century. According to Bull (1981), Machiavelli, who was born May 3, 1469, grew up during the "golden age" of Florentine culture. Bull also observed that during the last years of the fifteenth century, Machiavelli "saw the collapse of the Medici and was impressed by the instability of a government not based on the goodwill of the people." In addition, Machiavelli "witnessed the strife of the Florentine factions during the stormy period of Savonarola's [the leader of the Florentine republic after the Medici] domination and realized the need for powerful government based on internal unity" (p. 13).

The events in Florence that apparently influenced the young
Machiavelli were those that he later recorded as a historian. They included the Pazzi conspiracy of 1478, the battle of Poggio Imperiale in 1479, the death of Lorenzo de Medici in 1492, and the entry of Charles VIII of France into Florence in 1494 (de Grazia, 1989). Ironically, however, the formal education of the young Machiavelli was based on the concepts of the humanists of his day (Skinner, 1981, p. 4).

In describing Machiavelli's background, Skinner (1981) explained that Machiavelli's father, Bernardo, who had close ties with several distinguished scholars, kept notes in his diary about his son's studies. Shortly after his seventh birthday, little Niccolo began his study of Latin under Master Matteo. The second stage of his education began at age twelve when he was taught by a famous humanist instructor, Paola da Ronciglione. Besides noting the process of his son's classical education during this time, Bernardo recorded the books that he himself borrowed. Among these were Cicero's *Philippics*, *The Making of an Orator*, *On Moral Obligation*, and Livy's *History* (p. 4-5). Skinner suggested that these readings affected the philosophy of both father and son. The final stage of Niccolo's education was completed at the University of Florence as recorded in Giovio's *Maxims*. Here Machiavelli was instructed by Marcello Adriani who had served the university for several years before he was appointed to the first chancellorship. As suggested by Skinner, Adriani probably rewarded the talented Niccolo and helped him to secure his first political appointment. Because Giovio was noted for altering the truth in his writing, many biographers question the Adriani-Machiavelli
relationship, but Ridolfi (1963) concluded that such conjecture is reasonable because Adriani was in the best position to propose Machiavelli to the new government (p. 5).

Political Appointments

The most important educational lessons affecting Machiavelli's political views were the result of his diplomatic missions. At the time of his appointment in 1498, Machiavelli was one of the six secretaries to the first chancellor. Skinner (1981) commented that Machiavelli also served on a committee, the Ten of War, which was responsible for both foreign and diplomatic relations. As a result, he was required to travel and to send home detailed reports on foreign affairs (p. 7).

Bull (1981) noted that Soderini, the head of state, assigned Machiavelli various important diplomatic missions:

His journeys included a mission in 1499 to Caterina Sforza, countess of a small state of great strategic importance to Florence; to France, in 1500, to seek terms from Louis for continuing the war against Pisa; to Cesare Borgia, in 1502, when Florence was alarmed at Cesare's growing ambitions; to Rome, in 1503 to watch and report on the election and policy of the new pope; to Nepi, in 1506, to meet Julius II and discuss the aid demanded from the Florentines for his campaign to reconquer lost provinces of the Church; and to Maximillian, in 1507, to negotiate on the payment which he had demanded from the
Florentines to meet the expenses for his coronation as emperor in Rome. (p. 14)

When Machiavelli first took office, Florence was preoccupied with the recapture of Pisa. By 1500, the Pisans had been somewhat successful in their four-year struggle for independence in spite of France's aid to the Florentines. Both Machiavelli and Francesco della Casa were sent to the court of Louis XII of France to determine the reasons for the unsuccessful attempts to siege Pisa. It was during this six-month visit that Machiavelli learned about the government of France as well as about the weakness of Italy's city-states and in particular his own signoria, the city's ruling council. From this experience he developed his philosophy about the danger of procrastinating and the importance for bold action in the political scene. In spite of these observations, he maintained that Florence could recover and remain an independent state (Skinner, 1991, p. 6-7).

Machiavelli spent the next two years working with the signoria of Florence and courting Marietta Corsini, whom he married in the autumn of 1501. The council became quite concerned about the threat of Caesar Borgia as a military power. When Borgia demanded a formal alliance with Florence, the council selected Machiavelli as an envoy (Skinner, 1991, p. 8).

Prezzolini (1967) found that Machiavelli's visits with Borgia in 1502 were vital to the development of Machiavelli's philosophy. By following Borgia from October to January as he ambushed, captured, and slaughtered his enemies in central Italy, Machiavelli, for a time,
considered Borgia the "ideal Prince" (p. 150). Prezzolini included Machiavelli's description of Borgia as "a determined man without scruples, who kept his plans to himself, and then put them into immediate action with assurance and rapidity" (p. 151). For Machiavelli, this leader served as the first example of a man of action in line with the principles of leadership that Machiavelli had formulated for himself.

Skinner (1981) noted that Machiavelli was bothered at the outset by the Borgia's overconfidence. The leader was content to rely on chance. Borgia supported Cardinal Giuliano della Rovere, who as Pope took the name of Julius II. In *The Prince*, Machiavelli claims that Borgia made a gross error in supporting Rovere and relying on his own good fortune. Borgia did not receive a papal commission and lost his power as a military threat (p. 10).

Skinner (1981) identified Julius II as another leader who impressed Machiavelli. The diplomat was astonished to observe how Julius was able to reconquer the papal states in a short time. Yet, he was critical of Julius for attempting to strike out against the forces of France in 1510. Because Julius lived only a short time, he left the impression that he was a great leader (p. 12). Skinner also stated that Machiavelli was able to observe the leadership of the Holy Roman Emperor, Maximilian. Machiavelli asserted that Maximilian was inept because of his "constant readiness to be influenced by every different opinion" (p. 14). Because of this trait, Maximilian was unsuccessful in his expedition to Italy, and he failed as a leader in other areas as well.
**Dismissal, Imprisonment, and Exile**

In his introduction to *The Prince*, Bull summarized the circumstances leading to Machiavelli's dismissal:

Machiavelli was not an outstandingly successful diplomat. In any case, despite the importance of those to whom he was sent, he was never in a position to negotiate with decisive authority. But he traveled widely and kept his eyes open; and in his letters, dispatches, and commentaries of this period can be found the ideas, based on shrewd observation, which he later developed in his major works. . . . In 1505, Soderini allowed Machiavelli to start putting his scheme for a Florentine militia into effect. Dismissed from office when the Medici returned, he [Machiavelli] was a lost man. In November 1512, after he had already hopefully written letters of advice on government to the Medici, his movements were restricted. A few months later, suspected of being involved in a conspiracy against the new rulers, he was imprisoned and tortured, but subsequently exonerated and released. (p. 15-16)

Machiavelli's forced exile was to his family property at San Casciano outside the city of Florence. With the view of his city in the distance during this exile, he began the intense output of literary works that reflected the strong political philosophy he had acquired. During this time he wrote both *The Prince* and *The Discourses*. Much of his writing was an effort to convince the Medici that he was a worthy
employee and should be reappointed to a position in the Medici regime. Neither of these books prompted a political appointment for Machiavelli, but Machiavelli did provide the world with his extensive outlook concerning political life.

**Important Works of Machiavelli**

*The Prince*

*The Prince* is a handbook on war, power, manipulation, conquest, and government. Many authorities are quite critical of Machiavelli's philosophy while others feel that Machiavelli was one of the first to interpret the art of political science. Bull claimed that "*The Prince* marks an important step in the development of political science" (p. 24). Bull added, however, that "most of the excitement and repulsion which *The Prince* has generated comes from its frank acknowledgment that in practice successful governments are always ready to act ruthlessly to obtain their ends" (p. 24). Strauss explained that the first part of the book "sets forth the science or the art of princely government while the second takes up the time-honored questions of the limits of art or prudence" (p. 55).

According to Skinner (1981) as soon as Machiavelli was released from prison in 1513, he began his pursuit to establish his credibility with the new Medici government. In a letter to Francesco Vettori, a former colleague, he emphasized his own political insight and diplomatic experience. He explained to Vettori that as a result of
exile his studies had given him new insight and the outcome was "a little book On Principalities, in which I delve as deeply as I can into discussions about this subject" (p. 22). Skinner noted that Machiavelli's main concern was convincing the government that he would be a valuable employee. Intent on selling his expertise, Machiavelli dedicated his new book to Lorenzo de Medici who had become Duke of Urbino in October of 1516 as a result of his march on Urbino.

According to Ridolfi (1963), in Machiavelli's opinion, Lorenzo's military success was much like that of Borgia's. Because new conquests were expected of this new prince, Machiavelli's dedication included a plea for both the conquests of Italy and a political position "suited to his talents" (p. 164). In his plea, Machiavelli said, "And if Your Magnificence from the summit of your greatness will sometime turn your eyes upon these lowly places, you will see how undeservedly I suffer great and continuous ill fortune" (Ridolfi, 1963, p. 164).

Skinner (1981) commented on the importance of the dedication. "He [Machiavelli] insists in his Dedication that 'in order to discern clearly' the nature of the prince, the observer cannot be a prince himself, but 'must be one of the populace'" (p. 22). Skinner also pointed out that Machiavelli's self-confidence was attributed to his continued studies of ancient history, "an indispensable source of wisdom 'which with close attention I [Machiavelli] have for a long time thought over and considered'" (p. 22-23). Ridolfi (1963) concluded that this dedication apparently did not impress Lorenzo and pointed out
Machiavelli's disappointment expressed in his letter to his nephew Vernacci in June of 1517: "I am forced to stay in the country by the adversities I have suffered and suffer still, I am sometimes a month together forgetful of my true self" (164).

Bull (1981) made particular note of the conditions contributing to Machiavelli's composition of *The Prince* from the comments Machiavelli made in his letter to Vettori in December of 1513 in which he described his typical day of exile. Bull noted that Machiavelli's serious writing took place after a day of leisure and recreation.

Machiavelli returns home and enters his study. He takes off his soiled clothes, puts on the clothes he would wear at court, and then--his imagination taking wing--he returns to the ancient courts to talk amicably with the great men of the past. He talks politics; the thing he was born for. He asks these men the reason for their policies; and they tell him. (p. 18-19)

The result of Machiavelli's imagined conversations is *The Prince*, which according to Bull (1981) "marks an important stage in the development of 'political science'" (p. 23-24). Bull added that "in the final resort he [Machiavelli] taught that, in politics, whether an action is evil or not can only be decided in the light of what it is meant to achieve and whether it successfully achieves it" (p. 24).

Strauss (1958) explained that *The Prince* consisted of four parts: (1) the various kinds of principalities (chs. 1-11); (2) the prince and his enemies (chs. 12-14); (3) the prince and his subjects or friends (chs. 15-23); (4) prudence and chance (chs. 24-26).
Based on Meinecke's claim, Gilbert (1977) acknowledged that Machiavelli's declaration concerning his treatise *The Prince or De principatibus* in his letter to Vettori did not refer to the whole book but only to the first eleven chapters. Meinecke also stated that "chapter 11 was originally intended to be the final chapter" (Gilbert, 1977, p. 112-113). Based on this theory, the first section was written to define the four types of principalities that existed and to explain how these were acquired.

The four principalities that Machiavelli described were: hereditary, mixed, new, and ecclesiastical. Strauss (1958) stated that Machiavelli's discussion about the hereditary and the new principalities is incomplete because Machiavelli did not address elective principalities (p. 32). Strauss stated that Machiavelli followed the custom in calling the hereditary prince the "natural prince" and used contemporary Italian examples in the first two chapters (p. 56-57). By the third chapter, Strauss noted that Machiavelli introduced the idea that "the desire for acquisition is 'natural and ordinary,'" and that "the destruction of 'natural' princes, 'the extinction of ancient blood,' by an extraordinary conqueror is perhaps more natural than the peaceful and smooth transition from one ordinary heir to another" (p. 57). Furthermore, Strauss said that Machiavelli, in chapters 4 through 6, acknowledged ancient leaders with chapter 6 including Biblical prophets. Machiavelli introduced Cesare Borgia as the hero of chapter 7. Strauss indicated that Borgia "is presented at the outset as simply a model for new princes" who might "try to make changes in ancient
orders" (p. 58). Skinner (1981) stated that as a military commander "no better precepts could be offered to a new ruler" than Borgia (p. 33). Although many authorities refer to Borgia as being an ideal prince as conceived by Machiavelli, Ridolfi (1963) warned:

I do not think it is true to say that Machiavelli idealized Borgia; what is true is that, admiring strongly in him certain qualities and conditions, like a painter who takes some features from life for an ideal painting, he lent these characteristics to an abstract portrait of a prince, and sought them in vain in other princes of his time. (p. 64)

The last two chapters of this section included only modern examples of principalities as did the first two chapters, but examples other than Italian are included.

In the second part of the book (chapters 12, 13, and 14), Machiavelli presented that the method for Italy's redemption was to deal with the military power of the state. He emphasized the idea that good laws can exist only in a state which employs a strong military force. Machiavelli was quite critical of the mercenary troops, considering them more dangerous than others types of troops. In chapter 12, Machiavelli said of mercenary troops that they were "disunited, thirsty for power, undisciplined, and disloyal" (The Prince, p. 78). In addition, Machiavelli blamed Italy's reliance on mercenary troops for the successful invasion of Italy by Charles VII of France. He added, mercenary commanders were "anxious to advance their own greatness" and "must be under the control of either a prince or a
republic" (The Prince, p. 78). In Machiavelli's denunciation of auxiliary and mixed troops, he insisted that wise princes "have always shunned auxiliaries and made use of their own forces." He followed this statement with an example of Borgia who used auxiliaries for an invasion but who later decided they were unsafe and raised his own forces (The Prince, p. 84-85). In Machiavelli's discussion regarding the use of native troops, he cited Hiero of Syracuse who soon learned that the "mercenaries were useless" and after disbanding them, conducted war using his own soldiers. Next in his argument, Machiavelli alluded to David of the Old Testament as another successful leader of troops (p. 85).

In the third section of the book, Machiavelli listed the important qualities of a prince. These leadership qualities are evident in a leader recognized as having power. Strauss (1958) claimed that in this section, Machiavelli took "issue explicitly and coherently with the traditional and customary view according to which the prince ought to live virtuously and ought to rule virtuously" (p. 59). Skinner (1981) added that Machiavelli conceded that familiar humanistic characteristics, including the need to be "liberal, merciful and truthful," would be "praiseworthy," but not if the ruler "wishes to achieve his highest ends" (p. 37). Skinner expanded Machiavelli's prescription for success by explaining that if a ruler "seeks to maintain his state and obtain glory for himself," he cannot adhere to all the qualities that are considered good because the prince "must protect his interests in a dark world in which most men 'are not good' and he will not only fail to
achieve 'great things' but 'will surely be destroyed'' (p. 37). In addition, Skinner stated that concerning conventional morality, "a wise prince will be guided above all by the dictates of necessity" and in the words of Machiavelli, will act "contrary to truth, contrary to charity, contrary to humanity, contrary to religion' if he wishes 'to maintain his government''(p. 38).

In addition, Machiavelli used virtu to denote "the requisite quality of moral flexibility in a prince," and a truly virtuoso prince would "seek to present himself to his subjects as majestically as possible, doing 'extraordinary things' and keeping them 'always in suspense and wonder, watching for the outcome'' (Skinner, 1981, p. 40-41). Skinner referred to this new political thinking as "the new morality." He added that the aim in this philosophy is "to avoid appearing wicked even when you cannot avoid behaving wickedly" (p. 42). A virtuoso prince would, when necessary, be cruel, deceitful, disarm the weak, avoid neutrality, and select capable counselors.

In the last two chapters, Machiavelli discussed the political status of Italy during his day and suggested that the Italian princes lost their own states because they did not utilize the power needed to control their subjects nor control the nobles. In particular, he named the King of Naples and the Duke of Milan. Machiavelli also discussed the role that fortune played in the fate of Italian politics. According to Strauss (1958), Machiavelli indicated that "what is generally meant by God is in truth nothing but chance" (p. 74). In addition, Strauss concluded that in the last chapter, Machiavelli blamed the seven
astonishing defeats suffered recently by the Italian troops on the "poverty of the Italian military system and the ensuing preponderance of chance." Yet, Machiavelli claimed that an "industrious prince" could experience success as did Pope Julius II (Strauss, 1958, p. 74).

The final chapter disclosed Machiavelli's intent. He appealed to the new prince (Lorenzo) to follow his advice. He insisted that if the prince was wise, he would recognize the wisdom of his political theories. Mazzeo (1964) explained that this direct appeal to one man to unify the country was, in fact, bypassing the rulers of the various Italian governments. This type of appeal was contrary to the previous proposals that called for a coalition of Italian rulers. "He [Machiavelli] was realistic enough to realize that no Italian ruler was voluntarily going to cooperate himself out of a job and that force was the only remedy for the current state of affairs" (p. 159).

In conclusion, according to Strauss (1958), Machiavelli wanted "to better his fortune by showing Lorenzo how to better his fortune through becoming prince of Italy" (p. 75). Also, Strauss speculated that perhaps Machiavelli was "even thinking of the position of a permanent adviser" (p. 75). Cantor and Klein (1969) reported that Machiavelli "continued to seek re-entry into Florentine government; but when at last the Medici offered him a commission, it was not to enter government but to write a history of Florence" (p. 11). Although Machiavelli did not gain a political appointment for his efforts as he suggested in his dedication and in the final chapter of *The Prince*, this
lack of reward did not discourage his writings and he completed *The Discourses*, which he had begun before *The Prince*.

Together, *The Prince*, *The Discourses*, and Machiavelli's *History of Florence* have helped to establish Machiavelli not only as a historian of the Italian Renaissance, but, what is more important, they have established him as "the founder of modern political theory" (Cantor & Klein, 1969, p. 11). In summary, however, it was *The Prince* that offered psychological insight into the practice of ruthlessness by successful governments and introduced the Machiavellian characteristics necessary for effective leadership.

*The Discourses*

In the Epistle Dedicatory of *The Prince*, Machiavelli explained that he was dealing with a discussion of principalities and that he would not discuss republics "since he had done so elsewhere at length" (Strauss, p. 15). In *The Discourses*, Machiavelli presented both the princely and republican points of view. The book was addressed to two young men who were private citizens and who were "described in the Epistle Dedicatory as men who, while not princes, deserve to be princes, or as men who understand how to govern a kingdom" (Strauss, 1958, p. 21). Strauss also stated that Machiavelli's *The Discourses* is more comprehensive than *The Prince* and four times longer because "potential princes have leisure" and, therefore, have more time for the study of his ideas (p. 21). Because republics were a matter of the past,
Machiavelli's models of republican rule were based on the ancient Roman republics.

Lerner (1950) offered the following basic ideas presented in *The Discourses*:

First, the superiority of the democratic republic to every other political form; second, the ultimate reliance even of despotic and authoritarian regimes on mass consent; third, the primary political imperative of cohesiveness, organic unity in a state, stability and survival; fourth, the great role of leadership (what Machiavelli calls the role of the law-giver, but what we should today call leadership) in achieving this cohesiveness and survival; fifth, the imperative of military power in insuring survival and the need for putting it on a mass base (he felt that the war was the health of the state); sixth, the use of a national religion for state purposes, and the choice of one not for its supernatural validity, but for its power as a myth in unifying the masses and cementing their morale (Machiavelli's count against Christianity, like that of Nietzsche after him, was that by glorifying humility and pacifism and the weaker virtues, it dulled the righting edge of a state); seventh, the need in the conduct even of a democratic state for the will to survive, and therefore for ruthless instead of half-hearted measures when ruthless measures were necessary; eighth, the idea—later to be found in Vico and in our day in Spengler of the cyclical rise and fall of
civilizations due to the decadence and corruption of the old and
the reinvigoration of the new. (xxxvii)

Skinner (1981) discussed Machiavelli's association with the
humanists and literati who met for learned conversation and
entertainment. These meetings became vital to Machiavelli's daily life
after he realized that he would not receive any recognition from The
Prince. This group, known as the Orti Oricellari, held intensive
debates about politics. Such association led to his decision to write
The Discourses on the first ten books of Livy's History.

Skinner noted that Machiavelli stated his purpose in the first
Discourse. "His aim, he says, is to discover what 'made possible the
dominant position to which the republic rose'" (p. 50). Skinner added
that Machiavelli's aspiration was "to explain why certain cities have
'come to greatness' and why the city of Rome in particular managed to
attain 'supreme greatness' and to produce such 'great results'" (p. 51).

Strauss (1958) stated that Machiavelli divided The Discourses
into three books, each devoted to a particular subject:

The internal affairs of Romans that were transacted on the basis
of public counsel (I); the foreign affairs of Rome that were
transacted on the basis of public counsel (II); both private and
public affairs of Romans that were transacted on the basis of
private counsel (III). (p. 97)

In addition, Strauss discussed at length Machiavelli's intention for each
of these sections.
In conclusion, Strauss (1958) explained that Machiavelli presented in both *The Prince* and in *The Discourses* "substantially the same teaching from two different points of view, which may be described provisionally as the points of view of the actual prince and of potential princes" (p. 29). In *The Prince*, Machiavelli failed to distinguish between princes and tyrants and did not discuss the common good, which he did in *The Discourses*. Strauss warned that the points of view are not identical and that the modern student needs to undertake an intensive comparison of them. Such a comparison will reveal the twofold character of Machiavelli's teaching and offer insight into the political thinking of Machiavelli.

**Power and Politics**

The study of political science as related to power and politics is beneficial to anyone who serves in a leadership capacity. A school district provides a political arena for leaders and followers who assume unique roles. Some leaders rise to the top using their influence and are preoccupied with policy matters. Other leaders below these people in the hierarchy of power see that the system is maintained and that policies are implemented. Others are political functionaries concerned with party or interest-group maintenance (Kimbrough & Burkett, 1990). To evaluate the political arena of a school district, the importance of the power of the leader and the role of politics must be understood.
Sergiovanni and Starratt defined power as "metaphorically, a form of organizational energy which fuels the decision-making process-providing for both stability and change" (Sergiovanni & Starratt, 1990, p. 66-67). "Power, on the other hand, refers to anyone's ability to influence the decision-making process" (p. 67). Abbott and Caracheo (1988) in their report, "Power, Authority, and Bureaucracy," referred to Weber's definition of power as including "every conceivable quality of a person and every combination of circumstances that may put someone in a situation when he can demand compliance with his will" (p. 241). That ability can sometimes come from the authority associated with one's formal position in the hierarchy of the school but at other times comes from external sources.

Hoy and Miskel defined a political organization as "having to do with power, not structure. Politics is usually overlaid on all conventional organizations, but, at times, it becomes so powerful that it creates its own configuration" (Hoy & Miskel, 1990, p. 133). "There is no primary method of coordination, no single dominant part of the organization, no clear form of decentralization; everything depends on informal power and politics, marshaled to win individual issues" (Mintzberg, 1989, p. 241). "The school principal needs to accumulate influence in the existing regime, which involves the politics of the bureaucracy. A first step in achieving power and influence is to study and conceptualize the power relationships in the organization" (Kimbrough & Burkett, 1990, p. 88). Such an understanding demands knowledge of political science.
Although the science of politics was employed by ancient cultures, the effective use of power was evaluated and proclaimed by Machiavelli. Because he had studied the classics as a youth and was familiar with the political structure throughout Italy, he became an alert observer of the political bureaucracy after his government appointment. A study of his political life and of his political writings proves useful to anyone assuming the role of leadership, including the principals of secondary schools.

Machiavelli's appointment as the second chancery was not a particularly important position, but it presented one redeeming virtue: day-by-day political activities could be observed in Florence by the young leader. Cantor and Klein (1969) reported that Machiavelli's special commissions provided him with his knowledge of politics. The beginning of the sixteenth century was a decisive time for Italy; both France and Spain were planning to invade Italy. Many alliances were made and broken with extensive courses of action initiated. Machiavelli was sent from court to court to assess and observe these situations and advise Florence. He earned a reputation for his uncanny appraisals of complex situations and for providing clear and concise reports. From this experience, Burnham (1943) reported that Machiavelli had first-hand knowledge of politics and such knowledge allowed him to become one of the first modern analysts of power and politics. His interest in power was not about man's struggle to acquire it but about how man functioned politically. Machiavelli insisted that personal ambition must be for the state or directed into public channels
of power rather than private personal power. "Niccolo Machiavelli is claimed by some to be the first true political scientist because he ignored traditional values in describing empirically how a political leader might collect and use power" (Kimbrough, 1985, p. 28).

Prezzolini (1967) reported that Machiavelli made a clear distinction between politics and Christian ethics. He said that a person would not do things as a private individual that he is obliged to do as head of a government. To lie, break one's word, or cheat should fill an individual with great remorse; however, once the individual assumes the responsibility as the leader of his country, he would drop all moral criteria that he held as an individual.

His prime concern is the good of the state. The head of a state is like the captain of a boat who subordinates everything to his principal duty, to bring his ship safely into port. He does not hesitate a moment to lie or to use force against a passenger or a member of his crew when the safety of the ship is threatened. (Prezzolini, 1967, p. 17)

It should be recognized that Machiavelli never maintained that evil committed for personal gain was justified. Furthermore, he had compassion for the individual, but viewed the state's survival as the primary concern.

Martinez (1992) conducted a study on the morality of high- and low-Mach groups. He concluded that although a high-Mach may endorse a philosophy of deceit and opportunism, he may be as "moral as the low-Mach in other areas of sociopolitical belief" (p. 47).
Cantor and Klein (1969) reported that "Machiavelli was first and foremost what he professed to be: a classical humanist" (p. 11). He wanted statesmen to work for the welfare of society as was the view of other idealistic republicans of this era. Florentine politics promoted high moral ideals which good men often ignored and, in fact, betrayed in everyday political action. Cantor and Klein (1969) explained that Machiavelli set out to establish all realities of power and politics and to teach ambitious young men to obtain and retain power in the state. Machiavelli wanted a better political order for Italy. According to Smith (1985), "one can read almost any of Machiavelli's political works and discover an injunction to imitate the ancients" (p. 30).

Machiavelli believed that political development came in cycles. Degeneration was the cause for change. Reconstruction then came about as a result of the present needs. After the second cycle, further degeneration would occur and a new process would begin. To Machiavelli, history was the rise and fall of political authority.

Gilbert (1977) recounted that Machiavelli learned about political practice from observation. Unlike his predecessors, who sought to adapt and subordinate political theory into a theological or metaphysical pattern, Machiavelli said that political practice was derived from observation and experiences. The humanist authors of Machiavelli's time always stressed leadership qualities that were fundamentally peaceful and unrealistic. They portrayed a mild king surrounded by wise counselors following the law. This attitude was prevalent because Italy was politically isolated from the rest of Europe.
Machiavelli viewed the political situation by the known factors and calculable forces and felt that success was in the hands of a leader who knew how to calculate and weigh all political factors. "To political and military changes all over the world his ears prick up: they hear less of the gradual economic shifts. The growth of competition from northern cities, the trends, mainly declines, in Florentine international trade and banking" (Sebastian de Grazia, 1989, p. 7).

Sebastian de Grazia (1989) also reported that Machiavelli had broad economic ideas of his own but that they always pertained to military and political affairs. He did not undertake any personal business ventures except the leasing of some land and houses under his care.

The primary concern of Machiavelli was to report the political practice from his observations and to outline the strategy needed to maintain that power. Law and force are an important part of that power.

According to Machiavelli then law and force are separate species, but for the prince they are of the same genus; they are the two types of weapon [sic] that he needs to acquire and hold power to avoid losing it or having it taken from him. (Hexter, 1973, p. 209)

Pocock (1975) said Machiavelli believed that once power was gained and others did not have it, the only change that could result was that others gained power at the loss of one's own power. He saw the prince as launching a career of the "indefinite maximization of his
power" (p. 166). He also defined *strategy* as a science of the behavior of actors defined by the amount of power they possess. The power he referred to is not undivided power of people, but the power of a prince with relationship to another prince. The prince has internal rather than external power over society which allows him to acquire power. The prince should acquire power wholly by the exercise of his personal qualities and not from contingencies and circumstances outside himself (p. 166-167).

**Machiavellianism**

Machiavelli's political appointment allowed him to observe throughout his travels the strengths and weaknesses of the European leaders of his day. From these observations, he developed his political theory which later became known as "Machiavellianism." "The legend of 'Machiavellianism' began in Italy and France; twenty to thirty years after his death the papacy moved to ban all writings of the 'atheist Machiavel'" (Germino, 1972, p. 20).

Prezzolini (1967) observed that during the years that Machiavelli was alive, his doctrines caused only a slight murmur. They did not elicit hatred or astonishment. If a prince's church leaders had read or understood his ideas, they might have burnt him at the stake. "It was only when he stepped out of his own time that he became the big bad wolf" (p. 189). Machiavelli belonged to the future and made little impression on his peers, if any. The leaders of his time did not
consider him their spokesman nor an authority on power and leadership.

It should be noted that the greatest contributions made by Machiavelli were not his books, but the realities of the reader's mind and what he thought about them. The printed truth only exists on sheets of paper and in the author's mind, a reader must keep it alive. "All literary and philosophical criticism should be renewed on the basis of the principle that only what is in men's spirit has reality" (Prezzolini, 1967, p. 190). Gilbert (1977) explained that there was good reason for the general validity of discussions about moral norms and politics in Machiavelli's time, the Christian Middle Ages. The ancient world and the Renaissance were separated by the Christian Middle Ages. Justice and peace were considered the only legitimate purpose of government. It should be noted that rulers in the Middle Ages did not follow the Christian doctrine as they wanted people to believe.

Machiavellianism is credited with many terms and ideas that were not stated in his political writings. Through implication he gets credit for many ideologies and concepts concerning matters that were not of concern to him. Many ideas presented in The Prince and Discourses were meant to shock readers and did, to alarming degrees.

Kimbrough (1985) stated that "one must first see Machiavellianism as an amoral ethic because the central aim was to teach people (in his case, Machiavelli's cousin, the prince) how to acquire and use political power" (p. 28). He asserted that Machiavelli focused on political power, not the rightness or wrongness of strategies
or techniques. He concluded that Machiavelli’s writings were not effected by traditional ethical norms which were believed to be the basis for his political despotism.

Aggy, Pinner, and Christie developed a hypothetical role model for a manipulator or operator (Christie & Geis, 1970). To identify those persons who are effective in controlling others, the researchers identified the following four abstract characteristics which they felt were important.

1. *A relative lack of affect in interpersonal relationships.* In general, it seemed that success in getting others to do what one wishes them to do would be enhanced by viewing them as objects to be manipulated rather than as individuals with whom one has empathy. The greater is the likelihood of identifying with their point of view. Once empathy occurs, it becomes more difficult to use psychological leverage to influence others to do things they may not want to do.

2. *A lack of concern with conventional morality.* Conventional morality is difficult to define, but when thinking in terms of the findings, most people think lying, cheating, and other forms of deceit are, although common, reprehensible. Whether manipulators are amoral or immoral is a moot problem and one which probably concerns them less than those who are manipulated. The premise here is that those who manipulate have utilitarian rather than a moral view of their interactions with others.
3. A lack of gross psychopathology. The manipulator was hypothesized as taking an instrumentalist or rational view of others. Such a person would make errors in evaluating other individuals and the situation if his emotional needs seriously distorted his perceptions. Presumably, most neurotics and psychotics show deficiencies in reality testing and, by and large, fail in crucial ways in relating to others. It should be noted that manipulators are not the epitome of mental health; their contact with at least the more objective aspects of reality would have to be, almost by definitions, within the normal range.

4. Low ideological commitment. The essence of successful manipulation is a focus upon getting things done rather than a focus upon long-range ideological goals. Although manipulators might be found in organizations of diverse ideologies, they should be more involved in tactics for achieving possible ends than in an inflexible striving for an ultimate idealistic goal.

(Christie & Geis, 1970, p. 3-4)

Christie and Geis's speculation of abstract characteristics held by successful "operators" was the start of the research that produced the Mach V rating scale. The scale also answered the crucial question of whether such individuals did exist, in fact. Items taken from Machiavelli's The Prince and The Discourses were used to construct an operation instrument (scale) to measure the hypothetical concept.

Christie and Geis (1970) also offered their description of Machiavellianism as it relates to interpersonal behavior.
"Machiavellianism is someone who views and manipulates others for his own purposes" (p. 1).

The 1958 edition of *Funk & Wagnalls Dictionary of English Language* defines Machiavellianism as:

The theory and practice of power politics elaborated from Machiavelli's *The Prince*: envisaging (1) seizure, maintenance, and extension of absolute power by the nicely graduated use of guile, fraud, force, and frightfulness respectively, (2) reliance on expediency and reasons of state as justifying any departures from morality needed to hold power; control being then maintained by the ruler of all avenues of communication, thus facilitating the deliberate molding of public opinion; (3) use of a common enemy as political cement in holding together allies needed in acquiring power, and the ruthless liquidation of these allies and all other rivals once power has been acquired; (4) the employment for surveillance and terrorist activities of subordinates who can be disowned and liquidated by the ruler, who thus escapes the blame for their atrocities.

Calhoun (1969) described terms like deceit, cunning, and manipulation as having been associated with Machiavellianism. In today's modern management industries, the terms are not as unfavorable as in previous centuries. Managers today often use unpleasant but realistic examples of Machiavellianism tactics to succeed in today's market. Calhoun (1969), who believed that there was very little difference in the administrative strategies of
Machiavelli's era and in practice today, stated that "both eras find leaders who follow similar tactics to gain power and control the behavior of others" (p. 205). Reasons for managers not wanting to address themselves as cunning, deceitful, and manipulative include terminology that overshadows and exposes their need to do these very things. It would hurt the "validity of their concepts" (p. 205).

Skinner (1981) indicated in his philosophy that it is occasionally imperative for a leader to be manipulative and morally flexible and to demonstrate flexibility in changing circumstances. He added that a study of Machiavelli and his times is necessary in understanding the issues of political power and leadership.

Calhoun (1969) described his modern day Machiavellian prince as one who uses aggressive, manipulating, exploiting, and devious moves to attain his or her personal organizational objectives. The first consideration of a leader is to reach the organization's objectives without consideration of others.

In his study on decision-making involving risks, Rim (1966) explained that high Machiavellian leaders had a tendency to influence their groups to move in higher risk directions. High Machiavellian leaders performed and made greater high risk decisions.

Gilbert (1977) explained that Machiavellianism is understood to be part of an intellectual attitude. It permitted amoral actions for political ends. What is more important is that it permitted Machiavelli "to take on a Janus face, the inspirer of despotism was also the defender of freedom" (p. 167).
Germino (1972) noted that Machiavellianism emphasizes an antagonistic element in the elements of man's endowment. Violence, combat, and antisocial behavior are part of man's nature.

The universal hatred for Machiavellianism originated from "three principal currents of European thought: Catholic, Protestant, and Republican (or Liberal)" (Prezzolini, 1967, p. 194). A few independent thinkers having vested interests in other philosophies also denounced Machiavellianism. All currents originated from political minorities crushed by the wars and changes from the formation of Italy. Each of the three currents was quite different with very different reasons for denunciation. All attributed the misfortunes of their political parties to Machiavellian doctrines.

In summary, Mansfield (1989) stated that most scholars make the assumption that Machiavelli was not a deep thinker. Therefore, they do not recognize his kinship with the modern executive which is so definite that executives wonder if Machiavelli might have authored the modern executive. "Machiavelli also was the first political writer to use the word 'execute' frequently and thematically in its modern sense" (p. 121).

Jay (1967) said:
It is a pity that his name has become synonymous with sinister and unscrupulous intrigue—'murderous Machiavel.' It is also unjust, his main purpose was simply to analyze what practices had brought political success in the past, and to deduce from
them what principles ought to be followed for political success in the present. (p. 24)

Jay contended that Machiavellianism was an honest attempt to develop a scientific inquiry; the findings that he brought to light did not include moral acclaim as well. Jay quoted Bacon as saying, "He set forth openly and sincerely what men are wont to do, and not what they ought to do" (p. 24).

Christie explained that historians disagree on Machiavelli's purpose. Was Machiavelli "a cynic who wrote political satire, a patriot, or the first modern political scientist? The present concern is not with Machiavelli as an historic figure, but as the source of ideas about those who manipulate others" (Christie & Geis, 1970, p. 1).

Cockey (1984) in his dissertation, "The Machiavellian Orientation of Secondary School Principals and the Job Satisfaction of their Subordinate Teachers," quoted Ronald Andrea's description of a Machiavellian leader as "an artist who must be continually sensitive to the needs and changing moods of his constituents for the purpose of devising the most appropriate strategies at any given time" (p. 5). Strong decisive leadership is developed by the Machiavellian principal. Cockey (1984) stated that a leader's ability to analyze the situation and to adapt his or her style appropriately is a modern Machiavellian characteristic. Richford and Fortune (1982) pointed out that "in order to meet the increasing demands of their jobs when their perceived opportunity for formal organizational control is diminishing, secondary
school principals resort to interpersonal manipulation in an effort to augment their effectiveness" (p. 17).

Hoy and Miskel (1991) gave six example definitions of leadership. They quoted Amitai Etzioni in their second example. "Leadership is power based predominately on personal characteristics, usually normative in nature" (p. 252). Etzioni's description has a modern day Machiavellian cast that exemplifies the power base of the principal and his personal characteristics.

The Secondary School Principal

Kimbrough and Burkett (1990) included in chapter one of their text, The Principalship Concepts and Practices, a section on strength of character of the principal. They discussed that "this principal should have strength of character," which refers to the ethical or moral strength of the person. Principal failure and change often occur as a result of breach of ethics or moral character. Kimbrough and Burkett described two categories of administrative obligations: (1) legal obligations and (2) obligations of form. A principal who violates legal obligations is short-lived and usually quickly replaced. Ethics, on the other hand, is a matter of conscience; Kimbrough and Burkett described loyalty as an area of behavior that presents problems. Does the principal demonstrate loyalty to the point of performing illegal acts? "Declaration to high standards of ethics is essential for successful practice and for leadership in developing schools of quality" (p. 7).
Kaiser (1985) quoted Calhoun, the author of "Niccolo Machiavelli and the Twentieth-Century Administrator":

The full extent and ubiquity of Machiavelli's concepts relevant to present-day organizational administrators have largely escaped notice. Emphasis on good practices and principles of management on the one hand have tended to obscure the action of leaders that are unsavory but effective. On the other hand, the prevailing connotation of "Machiavellian" as a conniving, cold-blooded means for arriving at selfish ends has completely overshadowed the need for and validity of his concepts. Actually, modern organizational leaders operate much more according to the various teachings of Machiavelli than anyone might care to admit. Moreover, they have developed gambits, machinations, and pressures far beyond those that Machiavelli ever dreamed of advancing. (p. 9)

Kaiser (1985) described the Machiavellian thoughts of present-day administrators who draw from various precepts for survival:

1. "No one department and no one official in a state should be able to hold up proceedings" (p. 9). In education today, many action plans fail because informal lines of communication and decision making are delayed or stopped. There must be structural checks and balances so no one individual or group can stop the decision-making process.

2. "It is not a wise course to make an alliance with a ruler whose reputation is greater than his strength" (p. 9-10). Middle
managers should seek alliances with others who have "clout" and "power." These managers should never make an alliance with anyone at the end of his or her career or one who has reached a career plateau.

3. "That at the head of any army, there should be one not several commanders, and that to have a plurality is a nuisance" (p. 10). One individual needs to be the head of a school or company; multiple individuals can only cause delays, cost time, and create communication problems.

4. "A weak prince who succeeds an outstanding prince can hold his own, but a weak prince who succeeds another weak prince cannot hold any kingdom.

5. "Princes and republics which have not their own armed forces are highly reprehensible" (p. 10).

Kaiser (1985), who quoted Sergiovanni, Melzcus, and Burden in their findings, emphasized that "the most productive educational leadership style is one that emphasizes concern for task and for people, no matter whether the subordinates are self-motivated" (p. 10).

Knezevich (1975) in his descriptions of leadership styles offered a compromise of styles he called "transactional" leadership. These leaders appreciate "the need to achieve institutional goals, but at the same time hope that individual personalities will not be violated as they strive toward these goals" (p. 89).

Sergiovanni (1991) stated that "most administrative theorists consider management and leadership to be two distinctive expressions
of administrator practice" (p. 16). Principals are responsible for teachers and others who carry out designed specific tasks, as Sergiovanni outlined:

The principal's job—to coordinate, direct, and support the work of others is accomplished by defining objectives, evaluating performance, providing the necessary resources, building a supportive climate, running interference with parents, planning, scheduling, bookkeeping, resolving teaching conflicts, handling student problems, dealing with the school district central office, and otherwise helping to keep the school running day by day. When done well, these practices help the school achieve its goals. (p. 16)

Rossow (1990) reports that strong leadership from principals relates to school effectiveness. As leaders, the principals must act with purpose. Likewise, vice principals in large schools must have direction.

The effectiveness of principals may be determined by the structure of their organizations. Christie and Geis (1970) hypothesized that the moderately high-Mach would be effective in a loosely structured organization where goals are not predefined; whereas, a low-Mach would be effective in a highly structured organization with defined responsibilities (p. 352).

Campbell, Cunningham, Nystrand, and Usdan (1990) defined the principal as a middle manager who is responsible to the school
district for the operation of a single school with the following restrictions:

As a middle manager, the principal is very much in the middle of at least four competing forces:

1. The superintendent and his or her staff with their expectations and demands.
2. The teachers at the building site with their expectations and demands.
3. The students with their expectations for the principal.
4. Parents and other adults in the community who hold expectations for the principal. (p. 271)

Another question presented by Campbell et al. (1990) concerns the amount of autonomy the superintendent and his or her staff is willing to delegate to the principal. Is the principal a middle manager, a messenger boy for the central office, or a responsible leader?

Summary

Chapter 2 was divided into five major sections that included the background of Niccolo Machiavelli, a review of Machiavelli's major political works, a discussion of politics and power, an overview of Machiavellianism, and a discussion of secondary school principals.

The first section reviewed the humanist background of Machiavelli including his early studies, his political appointments, and his dismissal and exile which led to the formulating of his political
philosophy. Section two offered a review of *The Prince*, a treatise of statecraft addressed to the ideal prince of Machiavelli's day, and a short review of *The Discourses*, an extensive examination of the success of ancient republics. The third section offered a discussion of politics and power in view of Machiavellian political theory, and the fourth section expanded the concept of Machiavellianism from the viewpoint of contemporary writers. The last section concluded with a definition of a secondary principal and his or her duties based on the use of Machiavellian philosophy.
CHAPTER 3
Methods and Procedures

The following topics are presented in this chapter: the methodology used to test the research questions, the population studied, the design of the research, the main survey instrument—the Mach V Attitude Inventory, the treatment of the data, and the summary.

Methodology

In order to test the research questions, an attempt was made to collect data from 255 principals from across the state of Tennessee. A letter and packet explaining the study was sent to all qualifying principals. The letter to the principal served as an introduction to the study. The packet contained a Mach V Attitude Inventory Scale (Christie & Geis, 1970) and a demographic sheet. Following a two-week time period, a follow-up letter was mailed to those principals who did not respond.

Population

The population for the study was taken from the 1993-94 Tennessee Directory of Public Schools/Approved Nonpublic Schools published by the State Department of Education. The total population included 255 secondary principals (grades 9-12). Of these principals,
246 are employed by public schools and 9 are employed by approved nonpublic schools. The design of the study targeted a return rate of 60% of the questionnaires mailed. To produce this percentage rate, a minimum of 153 completed questionnaires was required.

Research Design

The research design for this study was descriptive. A descriptive study is primarily concerned with determining what is (Borg & Gall, 1989). The primary purpose of the descriptive study was to determine if certain Machiavellian attitudes are recognized by Tennessee public/nonpublic approved secondary principals.

Main Survey Instrument

Mach V Attitude Inventory

The Mach V Attitude Inventory was constructed by Richard Christie who was a professor of psychology at Columbia University, South Carolina. The instrument was designed to measure a person's general strategy for dealing with other people — especially the degree to which he or she feels other people can be persuaded or manipulated in interpersonal relationships (Christie & Geis, 1970).

The instrument design consisted of twenty questions with three alternative ideas in each group of questions:

1. the nature of interpersonal tactics
2. views of human nature
3. abstract or general morality.
The format was a forced-choice pattern which prohibited the respondents from distorting their answers to reflect social desirability. In each of the triad of statements, one statement is the variable the scale is intended to measure. The second is similar to the first in social desirability. The third statement is referred to as a buffer statement which is opposite to the other two in social desirability (Christie & Geis, 1970). The respondent was asked to select the statement which was most true or came the closest to describing his or her own beliefs and to select the statement which was most false or was the farthest from his or her own feelings. The total score on the Mach V Attitude Inventory reflects the willingness of the respondent to agree with Niccolo Machiavelli.

The possible scores on the Mach V Attitude Inventory range from 40 to 160. A score of 100 indicates a theoretical neutral point. A minimum score of 40 would indicate strong disagreement with the ten items worded in the Machiavellian direction and strong agreement with the ten responses worded in the reverse direction. A person scoring 99 or below is classified as a low Mach V-oriented person, and a person scoring above one hundred is classified as a high Mach V-oriented person. Thus, a maximum score of 160 would indicate that the respondent strongly agreed with the ten items worded in the Machiavellian direction and disagreed strongly with the ten reverse items.
Instrument Validity and Reliability

The validity of the Mach V Attitude Inventory is derived from the scaling of theoretical expectations of Machiavellianism (Christie & Geis, 1970). The rank order correlation of the twenty items of the Mach scale is .89. The internal consistency of the scale was adequately demonstrated by the .89 correlation (p. 21). Christie reported that the reliability for most samples was in the .60s (p. 27). He claimed that the scale makes meaningful discriminations among individual behaviors. Christie offered the following discussion concerning the reliability of the Mach V scale:

The elimination of both response set and social desirability tends to decrease scale reliabilities. If our concern had been to construct a scale with high internal consistency, this could have been done easily. We were more interested in devising a scale which would make meaningful discrimination among individuals' behavior. For this reason an attempt was made to minimize the effect of such possible extraneous variables as response set and social desirability.

At the time we were constructing the scales we had to choose between alternative strategies. One was to focus upon purifying them to maximize internal consistency. The other was to determine whether or not the imperfect scales we had would be adequate for research. The decision was not to worry about psychometric perfection, but to find out if the scale had any relevance to the respondent's behavior. (p. 27)
Scale performance according to the theoretical expectations of Machiavellianism produced evidence for the validity of the Mach V Attitude Inventory. This type of validity is referred to as "construct validity." Borg and Gall (1989) define construct validity as "the extent to which a particular test can be shown to measure a hypothetical construct, that is, a theoretical construction about the nature of human behavior" (p. 255). Several confirmed predictions demonstrate that the scale measures patterns of behavior it was designed to measure. Geis, Christie, and Nelson confirm this through their research as reported in Studies in Machiavellianism (Christie & Geis, 1970).

Treatment of the Data

Using the responding questionnaires for principals, the data were analyzed in accordance with the design of the instrument. The total Mach V scores numbered over 169 responses in accordance with the required minimum as predetermined by the study design. Those principals who score 99 or below are considered low-Mach, and those scoring above 100 are considered high-Mach. The principals were divided into three groups according to their Machiavellian orientations. For data purposes, a low-Mach or high-Mach principal was correlated to a specific question, trait, or attitude.

After all the data were correlated, the question of "What Machiavellian attitudes are acknowledged by Tennessee public/nonpublic secondary principals" was answered. The information derived from the demographics determined which
Machiavellian attitudes reflected a significant difference when compared to Machiavellian attitudes acknowledged by the responding principals.

**Summary**

Chapter 3 described the methodology and procedures that were used in the study. The principals selected were from approved public and nonpublic secondary schools, grades 9-12, in Tennessee. The sample included 255 secondary principals. The design of the study was descriptive and correlational in nature.

The main survey instrument was the Mach V Attitude Inventory Scale (Christie & Geis, 1970). A demographic sheet provided information pertinent to its domain. The reliability and validity of the instrument was discussed. The procedure for collecting data is explained detailing the method for contacting the principals. A follow-up letter was used to insure a good sample return. In addition, select principals were contacted by telephone to encourage participation. A short description of the inventory instrument concludes Chapter 3.
CHAPTER 4
Data Analyses

The purpose of the study was to explore the level of Machiavellian attitudes acknowledged by Tennessee secondary school principals. Questionnaires were sent to 255 Tennessee secondary school principals, grades 9-12. Section 1 of the questionnaire was a demographic inventory consisting of thirteen items. Section 2 of the questionnaire was the Mach V Attitude Inventory Scale (Christie, 1970). The scale consisted of 20 groups of statements which measured the Machiavellian attitudes of the respondents. At the onset of the study, sixteen research questions were addressed, and from these, seventeen null hypotheses were developed. The descriptive statistics are based on the analyses of the data.

This chapter is divided into three parts:

1. A demographic profile of the respondents, based on Section 1 of the questionnaire.

2. A listing of the sixteen research questions and the seventeen null hypotheses.

3. A report of the descriptive statistics for the responding principals measured by t-test for research questions 2, 3, 4, 5, 8, 12, 13, 14, and 15, by analysis of variance (one-way analysis) for research questions 6, 7, 8, 9, 10, 11, and 16, and by frequency distribution for research question 1.
Demographic Profile

The questionnaires, which included the demographics and the Mach V Attitude Inventory Scale, were mailed the third week in September 1994 to all Tennessee secondary school principals, grades 9-12. This mailing was followed by a second mailing two weeks later. Phone requests were made also to select principals to encourage participation.

The first return mailing yielded 121 responses, and the second mailing return yielded 48 responses, for a total of 169 responses. Of the 169 responses, 16 were not usable, and, in addition, one questionnaire had an incomplete Section 1 and one questionnaire had an incomplete Section 2.

The total response represents a return rate of 66.27%. Table 1 indicates the frequency distribution for the return rate and the percentages of the completed questionnaires from both mailings.

The demographic data regarding gender indicated that the majority of responding principals were male. The gender percentages are listed in Table 2.

The initial mailing consisted of 246 questionnaires sent to public school principals and 9 to principals of nonpublic schools. Although a greater number of public school principals were surveyed than nonpublic school principals, the return rate of the nonpublic school principals was greater. This return rate was 67% compared to 60% for the public school principals.
Table 1

**Frequency Distribution for Return Rate for Completed Questionnaires**

<table>
<thead>
<tr>
<th>Response</th>
<th>First mailing</th>
<th>Second mailing</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surveyed</td>
<td>255</td>
<td>134</td>
<td>389</td>
</tr>
<tr>
<td>Returned</td>
<td>121</td>
<td>48</td>
<td>169</td>
</tr>
<tr>
<td>Percent of return</td>
<td>47.45</td>
<td>35.85</td>
<td>43.44</td>
</tr>
</tbody>
</table>

Table 2

**Frequency Distribution for Gender of Principals**

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>134</td>
<td>79.3</td>
</tr>
<tr>
<td>Female</td>
<td>19</td>
<td>11.2</td>
</tr>
<tr>
<td>Nonresponding</td>
<td>16</td>
<td>9.5</td>
</tr>
<tr>
<td>Total</td>
<td>169</td>
<td>100.0</td>
</tr>
</tbody>
</table>
The response representation for the total survey was greater for public school principals because of the large number of public school principals surveyed. The frequency distribution for school status is presented in Table 3.

Table 3
Frequency Distribution for School Status

<table>
<thead>
<tr>
<th>Status</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nonpublic</td>
<td>6</td>
<td>3.5</td>
</tr>
<tr>
<td>Public</td>
<td>147</td>
<td>87.0</td>
</tr>
<tr>
<td>Nonresponding</td>
<td>16</td>
<td>9.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>169</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

The demographic data for ethnical/cultural background indicated that of the 169 principals the majority were Caucasian. Approximately 78% of the respondents were Caucasian and approximately 12% were non-Caucasian. Of this grouping, only 18 respondents identified themselves as African-American, and 1 indicated that he was Hispanic. Another indicated that his background was African/Vietnamese. The frequency distribution of respondents is presented in Table 4.
Table 4

Frequency Distribution for Ethnical/Cultural Background of Principals

<table>
<thead>
<tr>
<th>Ethnical/cultural Background</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>African-American</td>
<td>18</td>
<td>10.6</td>
</tr>
<tr>
<td>Caucasian</td>
<td>133</td>
<td>78.7</td>
</tr>
<tr>
<td>Hispanic</td>
<td>1</td>
<td>.6</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>.6</td>
</tr>
<tr>
<td>Nonresponding</td>
<td>16</td>
<td>9.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>169</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The demographic data for the various age groups indicated that the largest group of respondents were in the age groups 41-50 years. The second largest age group was 51-60 years. It should be noted that there were no respondents in the age group of 25-30 years. Approximately 52% of the respondents' ages ranged from 25 to 50 years, and 48% were 51 years or older. An even distribution is indicated by these two groups. The data for the age groups are presented in Table 5.
Table 5

Frequency Distribution for Age of Principals

<table>
<thead>
<tr>
<th>Age range</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>25-30 years</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>31-40 years</td>
<td>11</td>
<td>6.5</td>
</tr>
<tr>
<td>41-50 years</td>
<td>80</td>
<td>47.3</td>
</tr>
<tr>
<td>51-60 years</td>
<td>54</td>
<td>32.0</td>
</tr>
<tr>
<td>61 years+</td>
<td>8</td>
<td>4.7</td>
</tr>
<tr>
<td>Nonresponding</td>
<td>16</td>
<td>9.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>169</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Regarding years of experience in a principalship, the demographic data indicated that the largest percentage of respondents was in the group of 1-7 years. Approximately 70% of the principals had 1 to 15 years experience as a principal, and approximately 30% had more than 15 years in a principalship. Of notable interest, only one principal indicated more than 32 years of experience. The percentages for the five groups are presented in Table 6.
Table 6

Frequency Distribution for Years in a Principalship

<table>
<thead>
<tr>
<th>Range of years</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- 7 years</td>
<td>62</td>
<td>36.7</td>
</tr>
<tr>
<td>8-15 years</td>
<td>42</td>
<td>24.8</td>
</tr>
<tr>
<td>16-23 years</td>
<td>30</td>
<td>17.7</td>
</tr>
<tr>
<td>24-31 years</td>
<td>18</td>
<td>10.7</td>
</tr>
<tr>
<td>32 years+</td>
<td>1</td>
<td>.6</td>
</tr>
<tr>
<td>Nonresponding</td>
<td>16</td>
<td>9.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>169</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The demographic data regarding the educational level of the responding principals indicated that the majority of the respondents possessed an M.A. or M.S. degree, while approximately 30% held a degree above a master's level. Only two of the respondents indicated that they held a Ph.D. degree. In addition, one principal indicated that she possessed a Ph.D.A. The percentages of the five levels are indicated in Table 7.
Table 7
Frequency Distribution for Educational Level of Principals

<table>
<thead>
<tr>
<th>Educational level</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.A. or B.S.</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>M.A. or M.S.</td>
<td>103</td>
<td>61.0</td>
</tr>
<tr>
<td>Ed.S.</td>
<td>27</td>
<td>15.9</td>
</tr>
<tr>
<td>Ed.D.</td>
<td>20</td>
<td>11.8</td>
</tr>
<tr>
<td>Ph.D.</td>
<td>2</td>
<td>1.2</td>
</tr>
<tr>
<td>Ph.D.A.</td>
<td>1</td>
<td>.6</td>
</tr>
<tr>
<td>Nonresponding</td>
<td>16</td>
<td>9.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>169</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

The principals surveyed were asked to name the institution granting the principal's license. Table 8 presents a complete listing and frequency distribution of the respondents. Of the twenty-eight institutions listed, sixteen were Tennessee colleges or universities and fourteen were out-of-state institutions. The four Tennessee institutions with the greatest representation were the University of Tennessee at all locations with 25.4%, Middle Tennessee State with 13.6%, Memphis State University with 11.8%, and East Tennessee State University with 10.7%.
Table 8
Frequency for Institution Granting Principal Certification

<table>
<thead>
<tr>
<th>Institution</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Tennessee Knoxville (UTK)</td>
<td>31</td>
<td>18.3</td>
</tr>
<tr>
<td>University of Tennessee Martin (UTM)</td>
<td>11</td>
<td>6.5</td>
</tr>
<tr>
<td>University of Tennessee Chattanooga (UTC)</td>
<td>1</td>
<td>.6</td>
</tr>
<tr>
<td>Middle Tennessee State University (MTSU)</td>
<td>23</td>
<td>13.6</td>
</tr>
<tr>
<td>Memphis State University (MSU)</td>
<td>20</td>
<td>11.8</td>
</tr>
<tr>
<td>East Tennessee State University (ETSU)</td>
<td>18</td>
<td>10.7</td>
</tr>
<tr>
<td>Tennessee Technological University (TNTU)</td>
<td>10</td>
<td>5.9</td>
</tr>
<tr>
<td>Peabody University (PBYU)</td>
<td>7</td>
<td>4.1</td>
</tr>
<tr>
<td>Tennessee State University (TSU)</td>
<td>4</td>
<td>2.2</td>
</tr>
<tr>
<td>Mississippi State University (MSSU)</td>
<td>4</td>
<td>2.4</td>
</tr>
<tr>
<td>Austin Peay University (APU)</td>
<td>3</td>
<td>1.8</td>
</tr>
<tr>
<td>Lincoln Memorial University (LMU)</td>
<td>2</td>
<td>1.2</td>
</tr>
<tr>
<td>Western Georgia College (WGAC)</td>
<td>2</td>
<td>1.2</td>
</tr>
<tr>
<td>Appalachian State University (APSU)</td>
<td>2</td>
<td>1.2</td>
</tr>
<tr>
<td>Vanderbilt University (VBTU)</td>
<td>1</td>
<td>.6</td>
</tr>
<tr>
<td>Western Kentucky University (WKYU)</td>
<td>1</td>
<td>.6</td>
</tr>
<tr>
<td>University of Texas (UTX)</td>
<td>1</td>
<td>.6</td>
</tr>
<tr>
<td>Union College (UNION)</td>
<td>1</td>
<td>.6</td>
</tr>
<tr>
<td>University of Southern Mississippi (USMS)</td>
<td>1</td>
<td>.6</td>
</tr>
</tbody>
</table>

(table continues)
<table>
<thead>
<tr>
<th>Institution</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purdue University (PUU)</td>
<td>1</td>
<td>.6</td>
</tr>
<tr>
<td>Auburn University (AUBU)</td>
<td>1</td>
<td>.6</td>
</tr>
<tr>
<td>Murray State University (MSKY)</td>
<td>1</td>
<td>.6</td>
</tr>
<tr>
<td>Indiana University (INU)</td>
<td>1</td>
<td>.6</td>
</tr>
<tr>
<td>Belmont College (BELC)</td>
<td>1</td>
<td>.6</td>
</tr>
<tr>
<td>University of Illinois (UIL)</td>
<td>1</td>
<td>.6</td>
</tr>
<tr>
<td>University of Florida (UFL)</td>
<td>1</td>
<td>.6</td>
</tr>
<tr>
<td>Trevecca Nazarene College (TRNZC)</td>
<td>1</td>
<td>.6</td>
</tr>
<tr>
<td>University of New Mexico (UMX)</td>
<td>1</td>
<td>.6</td>
</tr>
<tr>
<td>Nonresponding</td>
<td>17</td>
<td>10.1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>169</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The demographic data of the number of years in the education profession indicated that the majority of respondents were in the range of 24-31 years. The group with 16-23 years as principal had the second largest representation in this category. In the highest range of 32+ years, 22 principals indicated they were in this range regarding their years of experience. Table 9 illustrates the frequency distribution for each of the ranges.
Table 9

**Frequency Distribution for Years in the Education Profession**

<table>
<thead>
<tr>
<th>Range of years</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>8-15 years</td>
<td>10</td>
<td>5.9</td>
</tr>
<tr>
<td>16-23 years</td>
<td>50</td>
<td>29.6</td>
</tr>
<tr>
<td>24-31 years</td>
<td>71</td>
<td>42.0</td>
</tr>
<tr>
<td>32 years+</td>
<td>22</td>
<td>13.0</td>
</tr>
<tr>
<td>Nonresponding</td>
<td>16</td>
<td>9.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>169</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Regarding administration aspirations, the demographic data indicated that approximately 70% of the respondents desired to remain in their present positions. Approximately 30% indicated other aspirations. The aspirations indicated by the principals are presented in Table 10.
Table 10
Frequency Distribution for Administration Aspirations

<table>
<thead>
<tr>
<th>Aspiration</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remain in present position</td>
<td>107</td>
<td>63.3</td>
</tr>
<tr>
<td>Superintendent</td>
<td>30</td>
<td>17.8</td>
</tr>
<tr>
<td>Enter business</td>
<td>6</td>
<td>3.5</td>
</tr>
<tr>
<td>Teach--college or university</td>
<td>4</td>
<td>2.4</td>
</tr>
<tr>
<td>Publish</td>
<td>1</td>
<td>.6</td>
</tr>
<tr>
<td>Nonresponding</td>
<td>21</td>
<td>12.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>169</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The principals indicated the geographical location of their schools in Tennessee. The reportings for those schools located in East and Middle Tennessee are slightly greater when compared to West Tennessee, but the three areas are similar in the frequency distribution. Table 11 presents the distribution of the school locations.
Table 11  
Frequency Distribution for School Location

<table>
<thead>
<tr>
<th>Location</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>East Tennessee</td>
<td>56</td>
<td>33.1</td>
</tr>
<tr>
<td>Middle Tennessee</td>
<td>57</td>
<td>33.7</td>
</tr>
<tr>
<td>West Tennessee</td>
<td>40</td>
<td>23.7</td>
</tr>
<tr>
<td>Nonresponding</td>
<td>16</td>
<td>9.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>169</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Considering the principalship being a part of a political/power mechanism or being a part of an educational mechanism, the demographic data reflected that the larger number felt that their positions were a part of an educational mechanism. This group represented 90% of the 169 surveyed respondents. Only 10% of the responding principals felt that their position was a part of a political mechanism. The frequency distribution of the respondents is illustrated in Table 12.
Table 12
Frequency Distribution for Political/Power or Educational Mechanism

<table>
<thead>
<tr>
<th>Type of Mechanism</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Political/power mechanism</td>
<td>15</td>
<td>8.9</td>
</tr>
<tr>
<td>Educational mechanism</td>
<td>135</td>
<td>79.9</td>
</tr>
<tr>
<td>Nonresponding</td>
<td>19</td>
<td>11.2</td>
</tr>
<tr>
<td>Total</td>
<td>169</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The principals surveyed ranked their own principalship satisfaction level on their questionnaire. Of the 169 responding principals, 92 indicated that they were satisfied in their current principalship. The demographic data indicated that the majority of the respondents were in this level of principalship satisfaction. Approximately 5% of the respondents indicated that they were dissatisfied while approximately 31% indicated that they were very satisfied with their position. The distribution frequency of satisfaction level is presented in Table 13.
Table 13

Frequency Distribution for Principalship Satisfaction Level

<table>
<thead>
<tr>
<th>Level of Satisfaction</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very satisfied</td>
<td>53</td>
<td>31.4</td>
</tr>
<tr>
<td>Satisfied</td>
<td>92</td>
<td>54.4</td>
</tr>
<tr>
<td>Dissatisfied</td>
<td>8</td>
<td>4.7</td>
</tr>
<tr>
<td>Nonresponding</td>
<td>16</td>
<td>9.5</td>
</tr>
<tr>
<td>Total</td>
<td>169</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The demographic data indicated if the respondents' superintendents were appointed or elected to their positions. Of the superintendents, 52.1% were appointed and 38.5% were elected. The majority were elected as presented in Table 14.
Table 14

<table>
<thead>
<tr>
<th>Frequency Distribution for Principal's Superintendent Being Appointed or Elected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>Appointed</td>
</tr>
<tr>
<td>Elected</td>
</tr>
<tr>
<td>Nonresponding</td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>

**Listing of Research Questions and Null Hypotheses**

To serve as a guide for the analyses, sixteen research questions were addressed. The following list constitutes the research questions considered.

**Research Questions**

Question 1: What level of Machiavellianism is demonstrated by Tennessee secondary school principals?

Question 2: Are there differences in the Machiavellian scores of Tennessee secondary school principals based on gender?

Question 3: Are there differences in the Machiavellian scores of Tennessee secondary school principals based on school status?
Question 4: Are there differences in the Machiavellian scores of Tennessee secondary school principals based on ethnical/cultural background?

Question 5: Are there differences in the Machiavellian scores of Tennessee secondary school principals based on age?

Question 6: Are there differences in the Machiavellian scores of Tennessee secondary school principals based on years of experience as a principal?

Question 7: Are there differences in the Machiavellian scores of Tennessee secondary school principals based on educational level?

Question 8: Are there differences in the Machiavellian scores of Tennessee secondary school principals based on the institution granting the principal's license?

Question 9: Are there differences in the Machiavellian scores of Tennessee secondary school principals based on years in the education profession?

Question 10: Are there differences in the Machiavellian scores of Tennessee secondary school principals based on administration aspirations?

Question 11: Are there differences in the Machiavellian scores of Tennessee secondary school principals based on school location?

Question 12: Are there differences in the Machiavellian scores of Tennessee secondary school principals based on self-perceptions of political/power mechanism and/or educational mechanism?
Question 13: Are there differences in the Machiavellian scores of Tennessee secondary school principals based on the principal's satisfaction level in his or her current principalship?

Question 14: Are there differences in the Machiavellian scores of Tennessee secondary school principals based on the principal's superintendent being appointed or elected?

Question 15: Are there differences in the Machiavellian scores of Tennessee secondary school principals based on exemplary versus nonexemplary school status?

Question 16: Are there differences in the Machiavellian scores of Tennessee secondary school principals based on the principals' subscores of views, morality, and tactics?

The following sixteen null hypotheses were tested at the 0.5 level of significance.

**Null Hypotheses**

- $H_{01}$: There will be no significant difference in the Machiavellian scores of Tennessee secondary school principals based on gender.

- $H_{02}$: There will be no significant difference in the Machiavellian scores of Tennessee secondary school principals based on school status.

- $H_{03}$: There will be no significant difference in the Machiavellian scores of Tennessee secondary school principals based on ethnical/cultural background.
$H_0\,4$: There will be no significant difference in the Machiavellian scores of Tennessee secondary school principals based on age.

$H_0\,5$: There will be no differences in the Machiavellian scores of Tennessee secondary school principals based on years of experience as a principal.

$H_0\,6$: There will be no differences in the Machiavellian scores of Tennessee secondary school principals based on educational level.

$H_0\,7$: There will be no differences in the Machiavellian scores of Tennessee secondary school principals based on the institution granting the principal's license.

$H_0\,8$: There will be no differences in the Machiavellian scores of Tennessee secondary school principals based on years in the education profession.

$H_0\,9$: There will be no differences in the Machiavellian scores of Tennessee secondary school principals based on administration aspirations.

$H_0\,10$: There will be no differences in the Machiavellian scores of Tennessee secondary school principals based on school location.

$H_0\,11$: There will be no differences in the Machiavellian scores of Tennessee secondary school principals based on self-perceptions of political/power mechanism and/or educational mechanism.

$H_0\,12$: There will be no differences in the Machiavellian scores of Tennessee secondary school principals based on the principal's satisfaction level in his or her current principalship.
H₀ 13: There will be no differences in the Machiavellian scores of Tennessee secondary school principals based on the principal's superintendent being appointed or elected.

H₀ 14: There will be no significant difference in the Machiavellian scores of Tennessee secondary school principals based on exemplary versus nonexemplary school status.

H₀ 15: There will be no significant difference in the Machiavellian scores of Tennessee secondary school principals based on the principals' subscores regarding views.

H₀ 16: There will be no significant difference in the Machiavellian scores of Tennessee secondary school principals based on the principals' subscores regarding morality.

Report of Descriptive Statistics

Utilizing the results of the respondents' questionnaires, research questions were addressed, and the hypotheses were tested using t-test for independent means or analysis of variance (one-way analysis). The statistical analyses were computed using the SPSS/PC+, Version 4.0.1, computer package. All hypotheses were tested at the .05 level of significance. The sixteen hypotheses for the study, written in the declarative form at the onset of the study, stated that there would be a significant difference in the level of Machiavellianism demonstrated by Tennessee secondary school principals.
Research Questions and Hypotheses

Research Question 1. The first research question was stated as follows:

**Question 1:** What level of Machiavellianism is demonstrated by Tennessee secondary school principals?

To answer this question, the Machiavellian score for each respondent was recorded according to the scale designed by Christie and Geis (Mach V Attitude Inventory Scale). A low-Mach score is scaled between 40 and 99; a neutral score is a Mach score of 100; and a high-Mach score is between 101 and 160. Table 15 presents a summary of the data for the Mach scores, and Figure 1 reflects the frequency of those respondents who ranked as low-, neutral, and high-Mach.

The mean score for the low-Mach range is 91.67. The theoretical neutral score for the Machiavellian Attitude Inventory Scale is 100.00. The mean score for the high-Mach range is 107.23. This indicates a closer relationship between the neutral and high-Mach groups. The value range for the low-Mach score is 75-98; the value range for the high-Mach score is 101-130. The Mach V scores were distributed in a band less in range than that designed for the inventory scale, 40-160. Because the range is 75 to 130, this indicates that no principals scored in the very low- or very high-Mach range, thereby minimizing the opportunity to determine significant relationships among the variables.
The majority of the principals in Tennessee scored in the low-Mach range. This group represented approximately 57% of the respondents. The balances of the principals' scores, 43%, were categorized as neutral or high-Mach. The survey produced 96 respondents as low-Mach, 10 as neutral, and 46 as high-Mach. The frequency distribution is presented visually in Figure 1.
Note. Seventeen responses were not valid.

Figure 1. Frequency distribution for levels of Machiavellian attitudes.

Research Question 2. The second research question was stated as follows:

**Question 2:** Are there differences in the Machiavellian scores of Tennessee secondary school principals based on gender?

The means for both male and female principals were compared and a significant difference was determined.

The following null hypothesis was related to question 2:

$H_0$: There will be no significant difference in the Machiavellian scores of Tennessee secondary school principals based on gender.

To test $H_0$, $t$-test for independent means was used to compare the mean of male and the mean of female respondents. The two-tail probability for this test was .045. Because this probability is less than the .05 level of significance, there is a difference in the mean score of
the male and female respondents in this sample at an alpha of .05. This hypothesis was, therefore, rejected.

The results of the t-test are presented in Table 16. This table is composed of the gender, the population, the mean, the standard deviation, the t value, and the two-tail probability for this hypothesis.

Research Question 3. The third research question was stated as follows:

**Question 3:** Are there differences in the Machiavellian scores of Tennessee secondary school principals based on school status?

There was no significant difference in the Machiavellian scores of Tennessee secondary school principals based on school status.

Table 16

**Differences in Mean Mach Scores by Gender of Principals**

<table>
<thead>
<tr>
<th>Gender</th>
<th>M</th>
<th>SD</th>
<th>n</th>
<th>t</th>
<th>Prob.</th>
<th>S/NS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>96.30</td>
<td>8.82</td>
<td>132</td>
<td>2.02</td>
<td>.045</td>
<td>S</td>
</tr>
<tr>
<td>Female</td>
<td>100.63</td>
<td>7.94</td>
<td>19</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes. Eighteen responses were not valid.

S/NS=significant or nonsignificant.

p<.05.
The following null hypothesis was related to question 3:

H₀₂: There will be no significant difference in the Machiavellian scores of Tennessee secondary school principals based on school status.

To test H₀₂, the t-test for independent means was used to compare the means of the principals' school status, public or nonpublic. Using a .05 level of significance, the two-tail probability was .052 for the calculation. Because this probability is greater than .05, there is no significant difference in mean score of the public and nonpublic schools of the respondents; although not significant, the level is of notable interest. This hypothesis was retained. The results of the t-test are presented in Table 17.

Table 17

Differences in Mean Mach Scores by School Status of Principals

<table>
<thead>
<tr>
<th>Status</th>
<th>M</th>
<th>SD</th>
<th>n</th>
<th>t</th>
<th>Prob.</th>
<th>S/NS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nonpublic</td>
<td>90.00</td>
<td>8.76</td>
<td>6</td>
<td>1.96</td>
<td>.052</td>
<td>NS</td>
</tr>
<tr>
<td>Public</td>
<td>97.13</td>
<td>8.72</td>
<td>145</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes. Eighteen responses were not valid.
S/NS=significant or nonsignificant.
p< .05.
Research Question 4. The fourth research question was stated as follows:

**Question 4:** Are there differences in the Machiavellian scores of Tennessee secondary school principals based on ethnical/cultural background?

There was no significant difference in the Machiavellian scores of Tennessee secondary school principals based on ethnical/cultural background of the responding principals.

The following null hypothesis was related to question 4.

\[ H_0^3: \text{There will be no significant difference in the Machiavellian scores of Tennessee secondary school principals based on ethnical/cultural background.} \]

The t-test for independent means was used to test \( H_0^3 \). The principals' responses regarding ethnical/cultural background were divided into two categories, Caucasian and non-Caucasian. Using a .05 level of significance, the two-tail probability was .577 for the calculation. Because the probability is greater than .05, there is no significant difference in mean scores based on ethnical/cultural background groupings. This hypothesis was retained. Table 18 presents the findings of this test.
Table 18

Differences in Mean Mach Scores by Ethnical/Cultural Background of Principals

<table>
<thead>
<tr>
<th>Background</th>
<th>M</th>
<th>SD</th>
<th>n</th>
<th>t</th>
<th>Prob.</th>
<th>S/NS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Caucasian</td>
<td>95.78</td>
<td>8.26</td>
<td>19</td>
<td>.56</td>
<td>.577</td>
<td>NS</td>
</tr>
<tr>
<td>Caucasian</td>
<td>97.00</td>
<td>8.90</td>
<td>132</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes. Eighteen responses were not valid.
S/NS=significant or nonsignificant.
p<.05.

Research Question 5. The fifth research question was stated as follows:

**Question 5**: Are there differences in the Machiavellian scores of Tennessee secondary school principals based on age?

There was no significant difference in the Machiavellian scores of Tennessee secondary school principals based on age of the responding principals.

The following null hypothesis was related to question 5.
H₀ 4: There will be no significant difference in the Machiavellian scores of Tennessee secondary school principals based on age.

The t-test for independent means was used to test H₀ 4 regarding age grouping of the principals. Five age groupings were provided to respondents. Due to small sample sizes in some categories, ages were collapsed into only two categories. In category 1, principals ranged from 31 to 50 years, and in category 2, the respondents were from ages 51 and up. On the basis of a .05 level of significance, the two-tailed probability was .204. There is no significant difference in age groups because the probability is greater than .05. This hypothesis was retained. The differences in the mean scores for the two age groups are presented in Table 19.

Research Question 6. The sixth research question was stated as follows:

Question 6: Are there differences in the Machiavellian scores of Tennessee secondary school principals based on years of experience as a principal?

There was no significant difference in the Machiavellian scores of Tennessee secondary school principals based on years in a principalship.
Table 19

Differences in Mean Mach Scores by Age Groups of Principals

<table>
<thead>
<tr>
<th>Range</th>
<th>M</th>
<th>SD</th>
<th>n</th>
<th>t</th>
<th>Prob.</th>
<th>S/NS</th>
</tr>
</thead>
<tbody>
<tr>
<td>31-50 years</td>
<td>97.60</td>
<td>8.82</td>
<td>90</td>
<td>1.28</td>
<td>.204</td>
<td>NS</td>
</tr>
<tr>
<td>51+ years</td>
<td>95.73</td>
<td>8.74</td>
<td>61</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes. Eighteen responses were not valid.
S/NS=significant or nonsignificant.
p< .05.

The following null hypothesis was related to question 6.

H₀ 5: There will be no differences in the Machiavellian scores of Tennessee secondary school principals based on years of experience as a principal.

Using the one-way analysis of variance, the H₀ 5 hypothesis was tested to compare the mean of four categories for years in a principalship. The categories 1-7, 8-15, 16-23, and 24+ years in a principalship were used. The calculation was conducted at a .05 level of significance. The two-tail probability for this test was .290. Because this probability is greater than .05, there is no significant difference in the mean scores of the four categories. This null
hypothesis was retained. Table 20 presents the results of the analysis of variance for years in a principalship.

Table 20

**Differences in Mean Mach Scores by Years in a Principalship**

<table>
<thead>
<tr>
<th>Range</th>
<th>M</th>
<th>n</th>
<th>F Ratio</th>
<th>F Prob.</th>
<th>S/NS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- 7 years</td>
<td>97.37</td>
<td>60</td>
<td>1.255</td>
<td>.290</td>
<td>NS</td>
</tr>
<tr>
<td>8-15 years</td>
<td>97.88</td>
<td>42</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16-23 years</td>
<td>94.10</td>
<td>30</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24+ years</td>
<td>97.26</td>
<td>19</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes. Eighteen responses were not valid.
S/NS=significant or nonsignificant.
p< .05.

Research Question 7. The seventh research question was stated as follows:

**Question 7:** Are there differences in the Machiavellian scores of Tennessee secondary school principals based on educational level?

There was no significant difference in the Machiavellian scores of Tennessee secondary school principals based on educational level.
The lowest level education reported was a master's degree. The means for the respondents holding a degree were compared and there were no significant differences concerning level of education.

The following null hypothesis was related to question 7.

$H_0$ 6: There will be no differences in the Machiavellian scores of Tennessee secondary school principals based on educational level.

Using a .05 level of significance, a one-way analysis of variance was used to compare the mean of the three categories for levels of education. The two-tail probability for this test was .58 at a significance level of .05. Because the probability level is greater than .05, there is no difference in the mean scores. This hypothesis was retained. The results of the one-way analysis of variance are presented in Table 21.

Research Question 8. The eighth research question was stated as follows:

**Question 8:** Are there differences in the Machiavellian scores of Tennessee secondary school principals based on the institution granting the principal's license?

No significant difference in the Machiavellian scores of principals based on the institution granting certification was indicated. The means for the respondents of Tennessee and non-Tennessee institutions and the four main institutions granting certification were compared and there were no significant differences.
Table 21

**Differences in Mean Mach Scores by Educational Level**

<table>
<thead>
<tr>
<th>Level</th>
<th>M</th>
<th>SD</th>
<th>n</th>
<th>F Ratio</th>
<th>F Prob.</th>
<th>S/NS</th>
</tr>
</thead>
<tbody>
<tr>
<td>M.A. or M.S. degree</td>
<td>97.12</td>
<td>9.18</td>
<td>101</td>
<td>.54</td>
<td>.58</td>
<td>NS</td>
</tr>
<tr>
<td>Ed.S. degree</td>
<td>97.33</td>
<td>7.56</td>
<td>27</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ed.D., Ph.D., or Ph.D.A. degree</td>
<td>95.08</td>
<td>8.62</td>
<td>23</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. Eighteen responses were not valid.

S/NS = significant or nonsignificant.

p < .05.

The following null hypothesis was related to question 8.

$H_0 7$: There will be no differences in the Machiavellian scores of Tennessee secondary school principals based on the institution granting the principal's license.

A $t$-test was used for the analysis. The two-tail probability for the analysis was .293 at a significance level of .05. Because the probability level was greater than .05, there is no difference in the mean scores. For the analysis, the listing of the institutions was divided into two groups, Tennessee colleges and universities and
non-Tennessee institutions. The null hypothesis was retained. The results of the t-test for $H_0$ are presented in Table 22.

Table 22

<table>
<thead>
<tr>
<th>Institution</th>
<th>Location</th>
<th>M</th>
<th>SD</th>
<th>n</th>
<th>t</th>
<th>Prob.</th>
<th>S/NS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tennessee</td>
<td></td>
<td>96.56</td>
<td>8.671</td>
<td>132</td>
<td>1.06</td>
<td>.293</td>
<td>NS</td>
</tr>
<tr>
<td>Non-Tennessee</td>
<td></td>
<td>98.84</td>
<td>9.737</td>
<td>19</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. Eighteen responses were not valid.
S/NS=significant or nonsignificant.

$p<.05$.

Using the one-way analysis of variance, an additional calculation regarding the $H_0$ hypothesis was made to determine if there was a significant difference in the ranking of the top four institutions represented. The calculation was conducted at a .05 level of significance. The two-tail probability is .361. Because this probability is greater than .05, there is no significant difference in the mean Mach scores of the four institutions. The null hypothesis was
retained. Table 23 presents the results of the analysis of variance for the four institutions.

Table 23

Differences in Mean Mach Scores by the Top Four Institutions

<table>
<thead>
<tr>
<th>Institution</th>
<th>M</th>
<th>n</th>
<th>F Ratio</th>
<th>Prob.</th>
<th>S/NS</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Tennessee (all locations)</td>
<td>96.97</td>
<td>43</td>
<td>1.07</td>
<td>.361</td>
<td>NS</td>
</tr>
<tr>
<td>Middle Tennessee State</td>
<td>93.26</td>
<td>23</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Memphis State University</td>
<td>96.35</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>East Tennessee State University</td>
<td>97.42</td>
<td>19</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes. S/NS=significant or nonsignificant.
p< .05.

Research Question 9. The ninth research question was stated as follows:

**Question 9:** Are there differences in the Machiavellian scores of Tennessee secondary school principals based on years in the education profession?
In the analysis regarding the Machiavellian scores of Tennessee secondary school principals based on years in the education profession, no significant differences were found between the groups.

The following null hypothesis was related to question 9.

$H_0$ 8: There will be no differences in the Machiavellian scores of Tennessee secondary school principals based on years in the education profession.

To test the null hypothesis, an analysis of variance was used to determine the difference in mean scores. The years in education indicated by the respondents produced four groups for the analysis. The groups were 8-15 years, 16-23 years, 24-31 years, and 32+ years. The $F$ probability for this test was .8580. Because the value is greater than .05, the level of significance indicates no difference. The results of the one-way analysis of variance are presented in Table 24.

Research Question 10. The tenth research question was stated as follows:

**Question 10:** Are there differences in the Machiavellian scores of Tennessee secondary school principals based on administration aspirations?

No significant difference was noted in the Machiavellian scores of principals based on the administration aspirations of the responding principals. The means for principals who indicated a desire to remain in their present position and those with other aspirations were compared and no significant difference was noted.
Table 24

**Differences in the Mean Mach Score by Years in Educational Profession**

<table>
<thead>
<tr>
<th>Range of Experience</th>
<th>n</th>
<th>M</th>
<th>F Ratio</th>
<th>F Prob.</th>
<th>S/NS</th>
</tr>
</thead>
<tbody>
<tr>
<td>8-15 years</td>
<td>10</td>
<td>99.11</td>
<td>.2545</td>
<td>.8580</td>
<td>NS</td>
</tr>
<tr>
<td>16-23 years</td>
<td>50</td>
<td>97.02</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24-31 years</td>
<td>71</td>
<td>96.64</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32+ years</td>
<td>22</td>
<td>96.18</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes.** Sixteen cases were not valid.

S/NS=significant and nonsignificant.

p< .05.

The following null hypothesis was related to question 10.

$H_0$ 9: There will be no differences in the Machiavellian scores of Tennessee secondary school principals based on administration aspirations.

Using a .05 level of significance for the one-way analysis of variance for independent means, a comparison was made of the three categories created from the groupings regarding respondents' aspirations. For the analysis, the respondents who indicated a desire to
remain in their present position were in category 1, those who indicated a desire to be superintendent were in category 2, and all other respondents were grouped in category 3. The \( F \) probability for this test was .2252 at a significance level of .05. Because the value is greater than .05, there is no difference in the mean scores. This hypothesis was retained. The results of the one-way analysis of variance are presented in Table 25.

research Question 11. The eleventh research question was stated as follows:

**Question 11**: Are there differences in the Machiavellian scores of Tennessee secondary school principals based on school location?

Regarding the Machiavellian score of Tennessee secondary school principals based on school location of the respondents, a significant difference was not noted.

The following null hypothesis was related to question 11.

\( H_0 \): There will be no differences in the Machiavellian scores of Tennessee secondary school principals based on school location.

The one-way analysis for variance was used to calculate the means regarding school location.
Table 25

**Difference in Mean Mach Scores by Administration Aspirations**

<table>
<thead>
<tr>
<th>Aspiration</th>
<th>n</th>
<th>M</th>
<th>Ratio</th>
<th>Prob.</th>
<th>S/NS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remain in present position</td>
<td>106</td>
<td>96.26</td>
<td>1.505</td>
<td>.2252</td>
<td>NS</td>
</tr>
<tr>
<td>Superintendent</td>
<td>30</td>
<td>99.33</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other aspirations</td>
<td>15</td>
<td>96.00</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes.** Eighteen cases were not valid.

S/NS=significant and nonsignificant.

p< .05.

To test the null hypothesis, a one-way procedure was used for the analysis. The three location groups in the analysis are East, Middle, and West Tennessee. The F probability for this test was .9150. Because the value is greater than .05, there are no significant differences among the three groups. The hypothesis regarding school location was retained. The results of this analysis are presented in Table 26.
Table 26
Differences in Mean Mach Scores by School Location

<table>
<thead>
<tr>
<th>Location</th>
<th>n</th>
<th>M</th>
<th>F Ratio</th>
<th>F Prob.</th>
<th>S/NS</th>
</tr>
</thead>
<tbody>
<tr>
<td>East</td>
<td>56</td>
<td>96.62</td>
<td>.0889</td>
<td>.9150</td>
<td>NS</td>
</tr>
<tr>
<td>Middle</td>
<td>57</td>
<td>96.71</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>West</td>
<td>40</td>
<td>97.35</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes. Sixteen cases were not valid.
S/NS=significant and nonsignificant.
p< .05.

Research Question 12. The twelfth research question was stated as follows:

Question 12: Are there differences in the Machiavellian scores of Tennessee secondary school principals based on self-perceptions of political/power mechanism and/or educational mechanism?

Regarding the Machiavellian scores of Tennessee secondary school principals based on self-perceptions of political/power mechanism and/or educational mechanism, there was no significant difference in scores.

The following null hypothesis was related to question 12.
H₀ 11: There will be no differences in the Machiavellian scores of Tennessee secondary school principals based on self-perceptions of political/power mechanism and/or educational mechanism.

Using a .05 level of significance, a t-test for independent means was used to compare the means of the two groups regarding the respondents' self perceptions of political/power or educational mechanism. The two-tail probability for this test was .202 at a significance level of .05. Because the probability level is greater than .05, no significant difference in the mean scores is indicated. This hypothesis was retained. The differences in the mean scores for the two groups are presented in Table 27.

Research Question 13. The thirteenth research question was stated as follows:

Question 13: Are there differences in the Machiavellian scores of Tennessee secondary school principals based on the principal's satisfaction level in his or her current principalship?

The Machiavellian scores of Tennessee secondary school principals based on the respondents' satisfaction level regarding principalship showed no significant difference.

The following null hypothesis was related to question 13.

H₀ 12: There will be no differences in the Machiavellian scores of Tennessee secondary school principals based on the principal's satisfaction level in his or her current principalship.
Table 27

**Differences in Mean Mach Scores by Political/Power or Educational Mechanism**

<table>
<thead>
<tr>
<th>Mechanism</th>
<th>M</th>
<th>SD</th>
<th>n</th>
<th>t</th>
<th>Prob.</th>
<th>S/NS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Political/Power</td>
<td>99.80</td>
<td>12.44</td>
<td>15</td>
<td>1.28</td>
<td>.202</td>
<td>NS</td>
</tr>
<tr>
<td>Educational</td>
<td>96.76</td>
<td>8.19</td>
<td>133</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes.** Twenty-one cases were not valid.

S/NS=significant and nonsignificant.

p< .05.

The t-test for independent means was used to test the null hypothesis regarding principalship satisfaction. A .05 level of significance for independent means was used for the analysis. The groups were placed in two categories. Category 1 listed those respondents who indicated that they were very satisfied, and category 2 grouped those who indicated a lesser level of satisfaction. The two-tail probability level for the t-test was .174. No significant difference in the level is indicated because the probability is greater than .05. The hypothesis was retained. The differences in the mean scores for satisfaction levels are presented in Table 28.
Research Question 14. The fourteenth research question was stated as follows:

**Question 14:** Are there differences in the Machiavellian scores of Tennessee secondary school principals based on the principal's superintendent being appointed or elected?

Table 28

**Differences in Mean Mach Scores by Level of Principalship**

<table>
<thead>
<tr>
<th>Satisfaction</th>
<th>M</th>
<th>SD</th>
<th>n</th>
<th>t</th>
<th>Prob.</th>
<th>S/NS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very satisfied</td>
<td>95.50</td>
<td>9.11</td>
<td>52</td>
<td>1.37</td>
<td>.174</td>
<td>NS</td>
</tr>
<tr>
<td>Satisfied/Dissatisfied</td>
<td>97.55</td>
<td>8.61</td>
<td>99</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes.** Eighteen cases were not valid.

S/NS=significant and nonsignificant.

p< .05.

The Machiavellian score of the Tennessee secondary school principals based on the respondents' superintendents being appointed or elected indicated no significant difference. The following null hypothesis was related to question 14.
\( H_0 13 \): There will be no differences in the Machiavellian scores of Tennessee secondary school principals based on the principal's superintendent being appointed or elected.

A t-test for independent means was used to compare the two groups regarding the respondents' superintendents. A .05 level of significance was used for the analysis. The two-tail probability level for this test was .481 at a significance level of .05. Because the probability is greater than .05, there is no significant difference in the mean scores of the two groups. The hypothesis was retained. Table 29 presents the results of the t-test.

Research Question 15. The fifteenth research question was stated as follows:

**Question 15:** Are there differences in the Machiavellian scores of Tennessee secondary school principals based on exemplary versus nonexemplary school status?

In the analysis concerning the Machiavellian scores regarding exemplary school status versus nonexemplary status of the responding principals, no significant difference was found.

The following null hypothesis was related to question 15.

\( H_0 14 \): There will be no significant difference in the Machiavellian scores of Tennessee secondary school principals based on exemplary versus nonexemplary school status.
Table 29

**Differences in Mean Mach Scores by Principals' Superintendent Being Appointed/Elected**

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>SD</th>
<th>n</th>
<th>t</th>
<th>Prob.</th>
<th>S/NS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appointed</td>
<td>96.4</td>
<td>8.65</td>
<td>86</td>
<td>.481</td>
<td>-.71</td>
<td>NS</td>
</tr>
<tr>
<td>Elected</td>
<td>97.4</td>
<td>9.04</td>
<td>65</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes. Eighteen cases were not valid.

S/NS=significant or nonsignificant.

p<.05.

To test the null hypothesis, t-test for independent means was used to compare the school status. This calculation was conducted at a .05 level of significance. The two-tail probability was .687. Because the probability is greater than .05, there is no significant difference in the mean score of the exemplary and nonexemplary status. This hypothesis was retained. The results of the t-test are presented in Table 30.
Table 30

Differences in Mean Mach Scores by Exemplary and Nonexemplary Schools

<table>
<thead>
<tr>
<th>Status</th>
<th>M</th>
<th>SD</th>
<th>n</th>
<th>t</th>
<th>Prob.</th>
<th>S/NS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exemplary</td>
<td>96.22</td>
<td>1.69</td>
<td>22</td>
<td>.40</td>
<td>.687</td>
<td>NS</td>
</tr>
<tr>
<td>Nonexemplary</td>
<td>97.05</td>
<td>9.01</td>
<td>130</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes. Seventeen responses were not valid.
S/NS=significant or nonsignificant.
p<.05.

Research Question 16. The sixteenth research question was stated as follows:

**Question 16:** Are there differences in the Machiavellian scores of Tennessee secondary school principals based on the principals' subscores of views, morality, and tactics?

There was a significant difference in the Machiavellian scores of Tennessee secondary school principals based on the subscores of the respondents regarding views, morality, and tactics.

Three null hypotheses (H₀15, H₀16, and H₀17) were based on research question 16.
Hypothesis $H_0$ 15 was related to the subscores based on views. It was stated as follows:

$H_0$ 15: There will be no significant difference in the Machiavellian scores of Tennessee secondary school principals' based on the principals' subscores regarding views.

Using a .05 level of significance, a one-way analysis of variance was used to compare the mean of the subscores regarding views. The $F$ probability for this test was .0000. Because the value is less than .05, there is a significant difference. The results of the one-way analysis of variance are presented in Table 31.

Table 31
Differences in Mean Mach Scores by the Views Subgroup

<table>
<thead>
<tr>
<th>Subgroup</th>
<th>n</th>
<th>M</th>
<th>$F$ Ratio</th>
<th>$F$ Prob.</th>
<th>S/NS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low-Mach</td>
<td>96</td>
<td>31.97</td>
<td>30.63</td>
<td>.0000</td>
<td>S</td>
</tr>
<tr>
<td>Neutral</td>
<td>10</td>
<td>34.80</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High-Mach</td>
<td>46</td>
<td>38.15</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes. Seventeen cases were not valid.
S/NS=significant or nonsignificant.
$p<.05$. 
Using the Student-Newman-Keuls procedure, the high-Machs are significantly different from the low-Machs or the neutral. The null hypothesis was rejected.

Regarding morality, $H_0$ 16 was related to question 16 and was stated as follows:

$H_0$ 16: There will be no significant difference in the Machiavellian scores of Tennessee secondary school principals based on the principals' subscores regarding morality.

Using a .05 level of significance, a one-way analysis of variance was used to compare the mean of the subscores regarding morality. The $F$ probability for this test was .00002. Because the value is less than .05, there is a significant difference.

Using the Student-Newman-Keuls procedure, the high-Machs and the neutral group are significantly different from the low-Machs. The null hypothesis was rejected. The results of the one-way analysis of variance are presented in Table 32.

Regarding tactics, $H_0$ 17 was related to question 16 and was stated as follows:

$H_0$ 17: There will be no significant difference in the Machiavellian scores of Tennessee secondary school principals based on the principals' subscores regarding tactics.
### Table 32

**Differences in Mean Mach Scores by the Morality Subgroup**

<table>
<thead>
<tr>
<th>Subgroup</th>
<th>n</th>
<th>M</th>
<th>F Ratio</th>
<th>F Prob.</th>
<th>S/NS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Mach</td>
<td>96</td>
<td>7.91</td>
<td>9.15</td>
<td>.0002</td>
<td>S</td>
</tr>
<tr>
<td>Neutral</td>
<td>10</td>
<td>9.80</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High-Mach</td>
<td>46</td>
<td>9.04</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes.** Seventeen cases were not valid.

S/NS=significant or nonsignificant.

p< .05.

Using a .05 level of significance, a one-way analysis of variance was used to compare the mean of the subscore regarding tactics. The $F$ probability for this test was .0000. Because the value is less than .05, there is a significant difference.

Using the Student-Newman-Keuls procedure, the high-Machs and the neutral group are significantly different from the low-Machs and the high-Machs are also significantly different from the neutral group. The null hypothesis was rejected. Table 33 presents the results of the one-way analysis.
### Table 33

**Differences in Mean Mach Scores by Tactics Subgroup**

<table>
<thead>
<tr>
<th>Subgroup</th>
<th>n</th>
<th>M</th>
<th>F Ratio</th>
<th>F Prob.</th>
<th>S/NS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low-Mach</td>
<td>96</td>
<td>31.88</td>
<td>65.68</td>
<td>.0000</td>
<td>S</td>
</tr>
<tr>
<td>Neutral</td>
<td>10</td>
<td>35.40</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High-Mach</td>
<td>46</td>
<td>40.26</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes.** Seventeen cases were not valid.

S/NS=significant or nonsignificant.

p< .05.

Because the three null hypotheses based on question 16 were rejected, the following explanation is offered. The totals of the three subscores represent each respondent's Machiavellian score. The means of the subscore exhibit the same pattern as the corresponding total Machiavellian score when comparing the means of the Machiavellian score, and a significant difference is determined. This indicates that each subscale accurately measured the information it was designed to obtain.
Summary

Chapter 4 described the Machiavellian attitudes of the responding Tennessee secondary school principals by presenting a demographic profile of the respondents and by addressing the sixteen research questions. One question was answered by using a frequency distribution, nine null hypotheses were tested by using a t-test for independent means and seven null hypotheses were tested using a one-way analysis of variance. One question (question 8) was addressed by using a t-test for independent means and a one-way analysis of variance. Except for gender, the demographic variables showed no significant differences regarding Machiavellian scores. The variable of gender proved significant at the .05 level, but the significance was slight. The subscores of views, morality, and tactics were significantly different regarding the total Machiavellian scores. Of the seventeen null hypotheses, thirteen were retained and four were rejected.
CHAPTER 5
Summary, Findings, Conclusions, and Recommendations

Summary
The final chapter is divided into four major sections. In the first section, the summary presents a review of the study and the research. The findings are presented in the second section, which includes the descriptive demographic data, the Machiavellian scores, and the findings related to each research question and hypothesis. The third section lists the conclusions and implications of the study, and the final section offers recommendations and the need for additional research.

The problem of this study was that few studies regarding the leadership attitudes of secondary school principals in the state of Tennessee had been conducted. The attitudes of principals needed to be determined, and this study was designed to measure the Machiavellian attitude levels that Tennessee secondary school principals acknowledge.

To measure the Machiavellian attitude of principals, a listing was made of public and nonpublic secondary school principals, grades 9-12 from the 1993-94 Tennessee Directory of Public Schools/Approved Nonpublic Schools published by the State Department of Education. Utilizing this listing, 255 questionnaires, which included demographics and a Mach V Attitude Inventory Scale, were mailed to Tennessee secondary school principals. Of these, 169
principals responded, producing a return rate of 66%. Seventeen of the responses were not valid for parts of the analyses.

Data were analyzed using a frequency distribution, t-test for independent means, and one-way analysis of variance. As a result of the data analyses, a significant difference was noted in the findings for two of the sixteen research questions. Those questions dealt with the variables of gender and Machiavellian score subgroups of views, morality, and tactics.

Findings

Demographic Data for Tennessee Secondary School Principals Surveyed

Utilizing the results of the data analyses regarding the demographic data, the following findings are presented:

1. The sample population included 169 respondents of which 18 were partially or totally invalid.
2. The sample population included 169 respondents of which 134 were males and 19 were females.
3. The sample population included representation from 147 public and 6 nonpublic schools.
4. The sample population included 1 African-American, 133 Caucasians, 1 Hispanic, and 1 other.
5. The sample population included 0 respondents in the age range of 25-30 years, 11 in the range of 31-40 years, 80 in the 41-50
year age range, 54 in the range of 51-60 years, and 8 in the range of 61 years and older.

6. The sample population included 62 principals with 1 to 7 years in a principalship, 42 with 8-15 years, 30 with 16-23 years, 18 with 24-31 years, and 1 with 32+ years.

7. The sample population included 0 principals with a B.A. or B.S. degree, 103 with a M.A. or M.S. degree, 27 with an Ed.S. degree, 20 with an Ed.D., 2 with a Ph.D. degree and 1 with a Ph.D.A. degree.

8. The sample population indicated receiving principal certification from 28 separate institutions.

9. The sample population included 10 principals with 8-15 years of experience in the education profession, 50 with 16-23 years, 71 with 24-31 years, 22 with 32+ years.

10. The sample population included 107 principals who desired to remain in their present position, 30 who desired to be superintendent, 6 who desired to enter business, 4 who desired to teach on the university or college level, and 1 who desired to publish.

11. The sample population included 56 principals from East Tennessee, 57 from Middle Tennessee, and 40 from West Tennessee.

12. The sample population included 15 principals who felt that they were a part of a political/power mechanism and 135 who felt they were a part of an educational mechanism.
13. The sample population included 53 principals who were very satisfied in their current principalship, 92 who were satisfied, and 8 who were dissatisfied.

14. The sample population included 88 principals who indicated that they served appointed superintendents and 65 served elected superintendents.

15. The sample population included 152 principals whose responses indicated 96 as low-Mach, 10 as neutral, and 46 as high-Mach.

Research Questions and Hypotheses

Sixteen research questions were formulated at the onset of the study. The findings as they pertain to the research questions and the related null hypotheses are as follows:

Question 1: The majority of the Tennessee secondary school principals scored low on the Machiavellian inventory.

Question 2: There are differences in the Machiavellian scores of Tennessee secondary school principals based on gender. The null hypothesis was rejected.

Question 3: There are no differences in the Machiavellian scores of Tennessee secondary school principals based on school status. The null hypothesis was retained.

Question 4: There are no differences in the Machiavellian scores of Tennessee secondary school principals based on ethnical/cultural background. The null hypothesis was retained.
Question 5: There are no differences in the Machiavellian scores of Tennessee secondary school principals based on age. The null hypothesis was retained.

Question 6: There are no differences in the Machiavellian scores of Tennessee secondary school principals based on years of experience as a principal. The null hypothesis was retained.

Question 7: There are no differences in the Machiavellian scores of Tennessee secondary school principals based on educational level. The null hypothesis was retained.

Question 8: There are no differences in the Machiavellian scores of Tennessee secondary school principals based on the institution granting the principal's license. The null hypothesis was retained.

Question 9: There are no differences in the Machiavellian scores of Tennessee secondary school principals based on years in the education profession. The null hypothesis was retained.

Question 10: There are no differences in the Machiavellian scores of Tennessee secondary school principals based on administration aspirations. The null hypothesis was retained.

Question 11: There are no differences in the Machiavellian scores of Tennessee secondary school principals based on school location. The null hypothesis was retained.

Question 12: There are no differences in the Machiavellian scores of Tennessee secondary school principals based on
self-perceptions of political/power mechanism and/or educational mechanism. The null hypothesis was retained.

Question 13: There are no differences in the Machiavellian scores of Tennessee secondary school principals based on the principal's satisfaction level in his or her current principalship. The null hypothesis was retained.

Question 14: There are no differences in the Machiavellian scores of Tennessee secondary school principals based on the principal's superintendent being appointed or elected. The null hypothesis was retained.

Question 15: There are no differences in the Machiavellian scores of Tennessee secondary school principals based on exemplary versus nonexemplary school status. The null hypothesis was retained.

Question 16: There are differences in the Machiavellian scores of Tennessee secondary school principals based on the principals' subscores of views, morality, and tactics. The three null hypotheses were rejected.

Conclusions

On the basis of the findings and upon the attitudes acknowledged by Tennessee secondary school principals, the following conclusions were made. The sample was limited to the principals of public and nonpublic schools grades 9-12.

1. Principals acknowledge that they possess low-Machiavellian attitudes.
2. The findings of this study are parallel with those of Christie and Geis who found that educators tend to be low-Machiavellian.

3. Female principals are more Machiavellian than male principals.

4. Leadership at exemplary secondary schools is not provided by high-Machiavellian principals.

5. Based on the demographic information, a typical secondary school principal is defined as follows: a male Caucasian who has served 1 to 7 years as a public school principal and has 24 to 31 years of educational experience and who is satisfied with his position, desires to remain in his principalship, and serves an appointed superintendent.

6. On the basis of the high rate of return and the even distribution of responses from the three areas of East, Middle, and West Tennessee, the results of the survey are descriptive of all secondary school principals. In addition, the even distribution and rate of return indicate that principals are interested in responding to research studies involving leadership attitudes.

7. Low-Machiavellian principals are serving superintendents who were appointed.

8. Machiavellian attitudes similar to the total Machiavellian scores of Tennessee secondary school principals, indicating that the Mach V Attitude Inventory Scale is a valid instrument for measuring Machiavellian attitudes.
Recommendations

Further research is needed concerning secondary school principals and Machiavellianism. On the basis of the findings and conclusions of this important initial study, the following recommendations are proposed:

1. Further research is warranted concerning Machiavellian orientation of female principals possessing high-Machiavellian attitudes.
2. Additional research is needed concerning principals' Machiavellian orientation and school effectiveness.
3. A study is needed to determine if the current trends in effective management, including site-based versus pyramid structures, reflect Machiavellian attitudes of principals.
4. A study needs to be conducted to determine the Machiavellian attitudes of superintendents, appointed and elected, school board members, and central office staff.
5. A survey of elementary and middle school principals needs to be made to determine their Machiavellian attitudes.
6. A study is recommended to measure the Machiavellian attitudes in other states to determine if Tennessee is indicative of a national norm.
7. Future studies are recommended to determine the leadership attitudes and styles being taught by higher educational institutions.
8. By the year 2001, this study should be replicated to determine any changes in Machiavellian attitudes of Tennessee secondary school principals.
REFERENCES
References


APPENDICES
APPENDIX A

COVER LETTER 1
779 Hairetown Road
Jonesborough, TN 37659
September 19, 1994

Dear Principal:

I am a fellow principal currently involved in the research and writing of my dissertation for a doctorate in Educational Leadership and Policy Analysis at East Tennessee State University in Johnson City, Tennessee. My study is being conducted under the leadership of Dr. Robert McElrath, chairman of my graduate committee. As a part of my dissertation, I am surveying the secondary school principals in our state concerning their leadership attitudes.

As a principal, I am aware of the demands of your daily work load. I would appreciate, however, your taking time to complete the enclosed questionnaire and returning the instrument within ten days using the postage-paid, preaddressed envelope. Please sign this cover letter as indicated and return with the questionnaire.

Your input is vital to the study and your individual responses will be kept confidential. All responses will be kept for ten years in my office at David Crockett High School. In the event of my relocation, all records will be maintained in my professional office. If you have any questions, please call me either at (615) 753-4601 or Dr. Anthony Dulucia, Chairperson, Institutional Review Board, East Tennessee State University, (615) 929-6134.

Thank you in advance for your assistance in this survey.

Sincerely,

George Max Williams, Jr.

Enclosures

___________________________________________
Respondent's Signature

(I ACKNOWLEDGE MY PARTICIPATION IN THIS RESEARCH PROJECT AS VOLUNTARY.)
APPENDIX B

SURVEY INSTRUMENT
TENNESSEE SECONDARY SCHOOL PRINCIPALS QUESTIONNAIRE

INSTRUCTIONS: The first section of this questionnaire will provide demographic information needed for the study. Please circle the appropriate letter indicating your choice. (Please mark only one response per demographic.)

1. Gender
   a. male
   b. female

2. School status
   a. private
   b. public

3. Ethnical/cultural background
   a. African-American
   b. Caucasian
   c. Hispanic
   d. Asian
   e. other

4. Age
   a. 25-30 years
   b. 31-40 years
   c. 41-50 years
   d. 51-60 years
   e. 61 years+

5. Years in a principalship
   a. 1-7 years
   b. 8-15 years
   c. 16-23 years
   d. 24-31 years
   e. 32+ years

6. Educational level
   a. B.A. or B.S.
   b. M.A. or M.S.
   c. Ed.S.
   d. Ed.D.
   e. Ph.D.

7. Institution granting principal's license to you
   ____________________________
   (fill in)

8. Years in the education profession
   a. 1-7 years
   b. 8-15 years
   c. 16-23 years
   d. 24-31 years
   e. 32 years+

9. Administration aspirations
   a. remain in present position
   b. superintendent
   c. enter business
   d. teach -- college or university
   e. publish

10. School location
    a. East Tennessee
    b. Middle Tennessee
    c. West Tennessee

11. Your principalship is a part of
    a. political/power mechanism
    b. educational mechanism

12. Current principalship satisfaction level
    a. very satisfied
    b. satisfied
    c. dissatisfied

13. Your superintendent is
    a. appointed
    b. elected
Instructions: You will find twenty groups of statements listed below. Each group is composed of three statements. Each statement refers to a way of thinking about people or things in general. The statements reflect opinions and not matters of fact—there are no right or wrong answers, and different people have been found to agree with different statements.

Read each of the three statements in each group. First decide which of the statements is most true or closest to your own beliefs. Put a plus (+) sign in the space provided before that statement. Then decide which of the remaining two statements is most false or the farthest from your own beliefs. Put a minus sign (-) in the space provided before that statement. Leave the last of the three statements unmarked.

Please do not fail to make a choice no matter how hard it might be. Do not omit any groups of statements.

1. ___A. It takes more imagination to be a successful criminal than a successful business man.
   ___B. The phrase "the road to hell is paved with good intentions" contains a lot of truth.
   ___C. Most men forget more easily the death of their father than the loss of their property.

2. ___A. Men are more concerned with the car they drive than with the clothes their wives wear.
   ___B. It is very important that imagination and creativity in children be cultivated.
   ___C. People suffering from incurable diseases should have the choice of being painlessly put to death.

3. ___A. Never tell anyone the reason you did something unless it is useful to do so.
   ___B. The well-being of the individual is the goal that should be worked for before anything else.
   ___C. Since most people don't know what they want, it is only reasonable for ambitious people to talk them into doing things.

4. ___A. People are getting so lazy and self-indulgent that it is bad for our country.
   ___B. The best way to handle people is to tell them what they want to hear.
   ___C. It would be a good thing if people were kinder to others less fortunate than themselves.
5. **A.** Most people are basically good and kind.
   **B.** The best criterion for a wife or husband is compatibility—other characteristics are nice but not essential.
   **C.** Only after a man has gotten what he wants from life should he concern himself with the injustices in the world.

6. **A.** Most people who get ahead in the world lead clean, moral lives.
   **B.** Any man worth his salt shouldn't be blamed for putting his career above his family.
   **C.** People would be better off if they were concerned less with how to do things and more with what to do.

7. **A.** A good teacher is one who points out unanswered questions rather than gives explicit answers.
   **B.** When you ask someone to do something, it is best to give the real reasons for wanting it rather than giving reasons that might carry more weight.
   **C.** A person's job is the best single guide to the sort of person he is.

8. **A.** The construction of such monumental works as the Egyptian pyramids was worth the enslavement of the workers who build them.
   **B.** Once a way of handling problems has been worked out it is best to stick to it.
   **C.** One should take action only when sure that it is morally right.

9. **A.** The world would be a much better place to live in if people would let the future take care of itself and concern themselves only with enjoying the present.
   **B.** It is wise to flatter important people.
   **C.** Once a decision has been made, it is best to keep changing it as new circumstances arise.

10. **A.** It is a good policy to act as if you are doing the things you do because you have no other choice.
    **B.** The biggest difference between most criminals and other people is that criminals are stupid enough to get caught.
    **C.** Even the most hardened and vicious criminal has a spark of decency somewhere inside.
11. ___A. All in all, it is better to be humble and honest than to be important and dishonest.
   ___B. A man who is able and willing to work hard has a good chance of succeeding in whatever he wants to do.
   ___C. If a thing does not help us in our daily lives, it isn't very important.

12. ___A. People shouldn't be punished for breaking a law that he thinks is unreasonable.
   ___B. Too many criminals are not punished for their crimes.
   ___C. There is no excuse for lying to someone else.

13. ___A. Generally speaking, people won't work hard unless they are forced to do so.
   ___B. Every person is entitled to a second chance, even after he commits a serious mistake.
   ___C. People who can't make up their minds are not worth bothering about.

14. ___A. A man's first responsibility is to his wife, not his mother.
   ___B. Most people are brave.
   ___C. It's best to pick friends that are intellectually stimulating rather than ones it is comfortable to be around.

15. ___A. There are very few people in the world worth concerning oneself about.
   ___B. It is hard to get ahead without cutting corners here and there.
   ___C. A capable person motivated for his own gain is more useful to society than a well-meaning but ineffective one.

16. ___A. It is best to give others the impression that you can change your mind easily.
   ___B. It is a good working policy to keep on good terms with everyone.
   ___C. Honesty is the best policy in all cases.

17. ___A. It is possible to be good in all respects.
   ___B. To help oneself is good; to help others is even better.
   ___C. War and threats of war are unchangeable facts of human life.

18. ___A. Barnum was probably right when he said that there's at least one sucker born every minute.
   ___B. Life is pretty dull unless one deliberately stirs up some excitement.
   ___C. Most people would be better off if they controlled their emotions.
19. ___A. Sensitivity to the feelings of others is worth more than poise in social situations.
   ___B. The ideal society is one where everybody knows his place and accepts it.
   ___C. It is safest to assume that all people have a vicious streak and that it will come out when they are given a chance.

20. ___A. People who talk about abstract problems usually don't know what they are talking about.
    ___B. Anyone who completely trusts anyone else is asking for trouble.
    ___C. It is essential for the functioning of a democracy that everyone vote.  
       (Christie & Geis, 1970, p. 10-34)
APPENDIX C

COVER LETTER 2
Dear Colleague:

This is a follow-up request to my previous letter and questionnaire in which I solicited your help. Your response is vital to the completion of my study for my doctoral dissertation at East Tennessee State University.

I desperately need your assistance. As a fellow principal, I realize the demands on your time; however, within the next few days, please take the time to complete the enclosed questionnaire. The first mailing did not yield the response rate I needed for my study.

In the event that you have misplaced the first letter, please indicate below your acknowledgment as a respondent and return this letter with your completed demographic sheet and questionnaire. If you have any questions regarding this study, please call me at David Crockett High School (615-753-1150). All responses will be kept confidential.

If you have responded to my first letter, please disregard this request. Thank you for your participation in this very important survey.

Sincerely,

George Max Williams, Jr.

Enclosures

________________________________________________________________________
Respondent's Signature
(I ACKNOWLEDGE MY PARTICIPATION IN THIS RESEARCH PROJECT AS VOLUNTARY.)
APPENDIX D

INSTRUMENT SCORING KEY
### TABLE

**Scoring Key for Mach V (1968)**

Points per Item by Response Pattern

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VITA

GEORGE MAX WILLIAMS, JR.

Personal Data:
Date of Birth: November 20, 1950
Place of Birth: Johnson City, Tennessee
Marital Status: Married

Education:
Public Schools, Johnson City, Tennessee, Baltimore, Maryland, Cocke County, Tennessee
East Tennessee State University, Johnson City, Tennessee; Industrial Education and Technology, B.S., 1973
East Tennessee State University, Johnson City, Tennessee; Industrial Education and Technology, M.A., 1974
East Tennessee State University, Johnson City, Tennessee; Leadership and Policy Analysis, Ed.D., 1995

Professional Experience:
Supervisor of Manpower Development Program, Johnson City Vocational-Technical School, Johnson City, Tennessee, 1974
Evening School Instructor, Johnson City Vocational-Technical School, Johnson City, Tennessee, 1974-1989
Teacher, David Crockett High School, Washington County, Jonesborough, Tennessee, 1976-1984
Assistant Principal, David Crockett High School, Washington County, Jonesborough, Tennessee, 1984-1987
Principal, Boones Creek Middle School, Boones Creek, Tennessee, 1987-1988
Principal, David Crockett High School, Washington County, Jonesborough, Tennessee, 1988-Present
Professional Membership:
American Vocational Association
Association for Supervision and Curriculum Development
First Tennessee Principals Study Council
Honorary Member of Future Farmers of America
Phi Delta Kappa
State of Tennessee Principals Study Council